# SERVING THE PUBLIC

ANNUAL REPORT 2012/2013

Environmental
Commissioner
of Ontario

"The government is us;
we are the government, you and I."

*–Theodore Roosevelt*

Environmental
Commissioner
of Ontario

Commissaire à
l'environnement
de l'Ontario

Gord Miller, B.Sc., M.Sc.
Commissioner

Gord Miller, B.Sc., M.Sc.
Commissaire

October 2013

The Honourable Dave Levac
Speaker of the Legislative Assembly of Ontario

Room 180, Legislative Building
Legislative Assembly
Province of Ontario
Queen's Park

Dear Speaker:

In accordance with Section 58 of the *Environmental Bill of Rights, 1993*, I am pleased to present the 2012/2013 Annual Report of the Environmental Commissioner of Ontario for your submission to the Legislative Assembly of Ontario.

Sincerely,

Gord Miller
Environmental Commissioner of Ontario

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# CONTENTS

**SERVING THE PUBLIC**
2012/2013 Annual Report

SERVING THE PUBLIC 4

PART 1 | The *Environmental Bill of Rights* 7

1.1 The Tookit of the *EBR* 8
1.2 Use and Misuse of the Environmental Registry 11
  *1.2.1 Quality of the Environmental Registry* 14
  *1.2.2 Orphaned Proposal Notices on the Environmental Registry* 19
1.3 No Right to Know: Instruments and Section 32 of the *EBR* 21
  *1.3.1 MOE's Review of the* EBR 23
1.4 Class Environmental Assessments and the Environmental Registry 23
  *1.4.1 Class EA for Activities of the Ministry of Northern Development and Mines under the* Mining Act 27
1.5 Ministries' Handling of Applications for Review and Investigation 28
1.6 Failure to Meet *EBR* Obligations for Statements of Environmental Values 30
1.7 Keeping the *EBR* in Sync 31
1.8 Appeals, Lawsuits and Whistleblowers 34
  *1.8.1 No Timely Notice of* Planning Act *Appeals* 39
1.9 The ECO Recognition Award 40
1.10 Education and Outreach 41
1.11 The Environmental Commisioner of Ontario's Annual Site Visit 42

PART 2 | The Role of Government as Environmental Steward 45

2.1 The Abdication of Natural Resources Management by MNR 46
2.2 Shielded from Public Scrutiny: Bill 55's Sweeping Changes to Environmental Laws 55
2.3 A Smaller and Smaller Piece of the Pie: The Budgets of MNR and MOE 57

PART 3 | Information, Science, and Monitoring 63

3.1 Looking Before We Leap: Making Informed Decisions for the Far North and the Ring of Fire 63
  *3.1.1 Environmental Monitoring Necessary for Decision Making in the Far North* 68
  *3.1.2 The Big Picture: Regional Strategic Environmental Assessment in the Ring of Fire* 72
3.2 Land Use Planning: Blind-Eye Measurement and Milquetoast Monitoring 76
3.3 Ontario's Forgotten Habitats: Tallgrass Communities, Alvars, and Coastal Dunes 82
  *3.3.1 The Beginning of the End of Stewardship?* 87
3.4 Who Hunts Snapping Turtles? 88

PART 4 – Developing Environmental Policy 93
4.1 Ontario Government Plan to Conserve Biodiversity 93
4.2 Stopping the Spread: Invasive Species Plan 99
4.3 Neglected Obligations: No Conservation Planning for Polar Bears 103
4.4 Stalling Progress: No Conservation Planning for Lake Sturgeon 105
4.5 Missing Metrics: The Lake Simcoe Fish Community Objectives 107
4.6 Protected Areas Planning: A Lost Priority 112
*4.6.1 Turtle River – White Otter Lake Provincial Park Management Plan* 116
*4.6.2 What Happens When Parks Stop Making Enough Money?* 117
4.7 Shale Gas - Regulate Before Fracking Begins 119
4.8 Channelling the Earth's Energy: Ground-source Heating and Cooling Systems 123
4.9 From Peak P to P Soup: The Phosphorus Challenge on Ontario Farms 129

PART 5 – Taking Action to Manage and Protect the Environment 137
5.1 A Renewed Commitment to Great Lakes Protection 137
5.2 Expansion of MOE's Environmental Activity and Sector Registry 144
5.3 Plans and Permits: New Requirements for Early Mineral Exploration 147
5.4 Rehabilitating Abandoned Mines 151
5.5 Air Emissions for an Asphalt Blending Facility 156
5.6 A New Compost Framework for Ontario 158
5.7 Using the *EPA* to Regulate the Safe Disposal of Waste Pharmaceuticals and Sharps 161
5.8 Filling the Gaps in the Regulation of Fine Particular Matter 166

Appendix A – 2012/2013 Annual Report Recommendations 170

Appendix B – Financial Statement 171

Appendix C – Ministry Comments on the Annual Report 174

ABBREVIATIONS 186

INDEX 187

# SERVING THE PUBLIC

*My relationship with the Ministry of the Environment (MOE) began 37 years ago in 1976. My professor at university received a small contract from MOE that I completed, and that helped fund my graduate school research work. Subsequently, I had an external consulting contract with MOE and then in 1980 I became a full-time employee on contract. In 1982 I became a full-time member of the Ontario Public Service (OPS). I have been in and out of the OPS twice since then and, of course, for the last 13 years I have been the Environmental Commissioner. But despite my hopping around, I have had a constant relationship with MOE for all those 37 years. And I have seen change.*

*Not just the sweeping changes that technology has brought to the way we do business, but technology was certainly simpler. In 1980, computers were mainframes occupying whole buildings and where data were input on punch cards. We did not even have fax machines so communication was via the postal service, with the corresponding response times. Technology aside, the differences between then and now are in how we as public servants are expected to do our jobs.*

*In those days, just as the name implies, we saw ourselves as – and we were – servants of the public and working in the public interest. The public interest in MOE included but was not limited to working with industry to limit pollution to the air and water, making sure solid and liquid wastes were properly managed, assuring that sewage treatment plants and drinking water treatment were properly operated, and responding to emergencies like transportation spills. Our services were primarily delivered out of district offices throughout the province, although some programs ran out of the regional or head office.*

*District staff were in the communities and known to the people and in contact with municipalities, businesses and the media. We were expected to be on top of local problems and situations quickly and had the authority to engage the problems. But most importantly for the technically complex issues of the environment we were backed by a truly world-class assembly of regional and head office biologists, chemists, engineers and industrial sector experts who were at the disposal of field people. Collectively we were the technical and professional peers of the industrial and municipal professional staff we oversaw (and sometimes we were more qualified). It was not uncommon for industries that we engaged with one day in heated pollution control negotiations to call us a few days later for technical advice and assistance on some other problem.*

*When we attended public meetings held by community groups, municipalities or even industries, MOE staff were seen as professionals working in the best interest of the public. And, we were respected for it and the public had faith in us as public servants.*

*At MOE we were not perfect, but on the whole we were present, effective and largely successful in substantially reducing pollution and greatly improving environmental management. We were serving the public, and it is my observation that the other major front-line ministries like the Ministry of Natural Resources were doing so also. Then somewhere in the early 1990s things began to change.*

*I was in MOE management through most of the '90s and I remember the tone of the conversation changing. It became no longer about what we were doing or how well or efficiently we were doing it. Rather, the direction from higher levels of government was about doing only the minimum required and getting rid of responsibility for some of the things we were doing, all to save money.*

*That is how fateful decisions were made to cut back on inspections of drinking water treatment facilities, ultimately contributing to the tragic deaths and illnesses at Walkerton a few years later.*

*Next, there came staff cuts. First it was a compression of management layers, which sounds efficient but in its application resulted in the elimination of many of the scientists and other experts who were the core of MOE expertise. Later, field staff were cut and many district and sub-district offices were closed altogether, removing direct contact with many communities. Finally, pollution abatement and enforcement activity were toned down, reducing the relevance of MOE to the people even further.*

*As the years have gone by in the 21st Century, financial and staffing constraints have continued despite the tremendous growth in the economy and human population and the increasing severity of environmental challenges like climate change. MOE today is a shadow of its former self. It still has some top scientists and experts but cutbacks have hamstrung its capacity to engage the full spectrum of the ministry's mandate. Its famous Rexdale laboratory still functions (although regional labs are closed) but it no longer has the resources to produce world-class analytical research. Field staff in the districts are overwhelmed and unable to fully engage in the local discourse in communities about environmental concerns. Pollution events go uninvestigated or unabated and the public and industrial businesses express frustration to my office over the lack of progress in approvals processes or the inability to get MOE staff to understand or act on their problems.*

*Ironically, the angry response that I hear from some in the business sector is to cut "them" further, "them" being MOE or another OPS agency that has been the source of their frustrations. Many in the private sector don't see that it is the very cuts and constraints, continuously applied over the last twenty years, that are the source of their problems.*

*In order for industry to have a social licence to operate, they have to have the confidence of their communities. That requires respected and competent independent oversight that the public feels is working in the public interest. In its absence, industrial proposals bog down in suspicion, mistrust and conflict. In order for municipalities to garner support to tax their citizens for public services like drinking water, sewage treatment and solid waste management there has to be a competent, independent agency that the public trusts to arbitrate what is necessary in the interest of public health and safety and environmental quality. When spills or accidents release complex chemicals into communities or the surrounding natural environment, the public has to have some agency to turn to for explanations or reassurance that the release is being properly dealt with, or fear and hostility break out.*

*MOE as a public agency was staffed by a full complement of public servants to play these roles. Subsequently we have crippled that capacity. The need for these roles is just as acute as ever, perhaps greater because of the complexity of some of the problems we are facing.*

*The time has come to stop disparaging the job of public servant. If we want to escape the anger, frustration and conflict that so often plagues decision making in our society, we have to restore the human capacity and financial stability of a professional civil service. And, we have to give these people the respect and public confidence they deserve, so we can get on with business and they can get on with serving the public.*

# 1

# THE *ENVIRONMENTAL BILL OF RIGHTS*

The *Environmental Bill of Rights, 1993* (*EBR*) is a significant and unique environmental law, unlike any other in Canada or the rest of the world. The purposes of the *EBR* are to:

- protect, conserve and, where reasonable, restore the integrity of the environment;
- provide sustainability of the environment; and
- protect the right of Ontarians to a healthful environment.

To achieve these goals, the *EBR* requires the Ontario government to consider the environment in its decision making. While the government has the primary responsibility for protecting the natural environment, the *EBR* recognizes that the people of Ontario have the right to participate in environmental decision making, and the right to hold the government accountable for those decisions. The *EBR* enables Ontarians to exercise their rights to:

- comment on environmentally significant ministry proposals;
- ask a ministry to review an environmentally significant policy, act, regulation or instrument;
- ask a ministry to investigate alleged harm to the environment;
- appeal certain ministry decisions; and
- take court action to prevent environmental harm.

## The Environmental Commissioner of Ontario

The Environmental Commissioner of Ontario (ECO), as an independent Officer of the Legislative Assembly, is responsible for reviewing and reporting on the government's compliance with the *EBR*. The ECO reports annually to the Legislative Assembly – not to the governing political party or to a ministry. To ensure the *EBR* is upheld, the ECO monitors how ministers exercise their discretion and carry out their responsibilities in relation to the *EBR*. Each year, the ECO reports on whether ministries have complied with the procedural and technical requirements of the *EBR*, and whether ministry decisions were consistent with their Statements of Environmental Values (SEVs) and the purposes of the *EBR*. Moreover, the ECO reports on the progress of the Ontario government in keeping the *EBR* up to date by prescribing new ministries, laws and instruments that are environmentally significant.

Part 1 of this Annual Report contains a summary of these reviews, including, among other things, a discussion of:

- the number and quality of the notices posted by prescribed ministries on the Environmental Registry;
- ministries' use of information and exception notices;
- failures of prescribed ministries to post environmentally significant proposals on the Environmental Registry for public notice and consultation;
- adherence by prescribed ministries to statutory timelines for responding to applications for review and investigation; and
- the government's progress in prescribing ministries, agencies and laws under the *EBR*.

The *EBR* provides several legal tools that enable Ontarians to enforce and protect their environmental rights. Part 1 also includes a summary of these tools, along with a discussion of how members of the public have used their legal rights during this reporting year (April 1, 2012 – March 31, 2013).

## 1.1 The Toolkit of the *EBR*

There are four broad categories of tools in the *EBR* that establish rights for the public and responsibilities for prescribed provincial ministries.

### Statement of Environmental Values

The *EBR* requires each prescribed ministry to develop and publish a Statement of Environmental Values (SEV), which it must consider when making decisions that might significantly affect the environment. An SEV describes how the ministry will integrate environmental values with social, economic and scientific considerations when it makes environmentally significant decisions. The ministry does not always have to conform to its stated values, but it must be able to clearly explain how it considered its SEV in the decision-making process. This mechanism reveals how a given ministry views its environmental responsibilities.

### Public Notice and Consultation through the Environmental Registry

The Environmental Registry is one of the key tools that enable the public to participate in government decision making that affects the environment. It is a searchable online database that provides public access to information about environmentally significant proposals and decisions made by the Ontario government. The Environmental Registry can be accessed at www.ebr.gov.on.ca.

Under the *EBR*, all prescribed ministries are required to give notice of environmentally significant proposals on the Environmental Registry. Ministries must provide a minimum of 30 days for the public to submit comments on the proposal before making a final decision. Once a ministry has made a decision, it must post a notice on the Environmental Registry that describes the outcome and explains the effect of public participation on the decision.

It is important to note that government responsibilities under the *EBR* only apply to ministries that are prescribed (i.e., designated in a regulation) under the law. Fourteen ministries are currently prescribed under the *EBR*, as detailed below. These ministries must prepare and consider an SEV, and must give notice and consult with the public on any proposed environmentally significant acts or policies through the Environmental Registry. Every year, the ECO reports on a selection of decisions posted on the Environmental Registry. The ECO also reviews ministry compliance with *EBR* public consultation requirements.

The following ministries are prescribed in O. Reg. 73/94 made under the *EBR* for the purposes of SEV consideration and public consultation:

- Ministry of Agriculture, Food and Rural Affairs (OMAFRA)*
- Ministry of Consumer Services (MCS)
- Ministry of Economic Development and Innovation (MEDI)**
- Ministry of Education (EDU)
- Ministry of Energy (ENG)
- Ministry of the Environment (MOE)
- Ministry of Government Services (MGS)
- Ministry of Health and Long-Term Care (MOHLTC)
- Ministry of Labour (MOL)
- Ministry of Municipal Affairs and Housing (MMAH)
- Ministry of Natural Resources (MNR)
- Ministry of Northern Development and Mines (MNDM)
- Ministry of Tourism, Culture and Sport (MTCS)
- Ministry of Transportation (MTO)

**In February 2013, the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) was split into the Ministry of Agriculture and Food (OMAF) and the Ministry of Rural Affairs (MRA).*

***In February 2013, the Ministry of Economic Development and Innovation (MEDI) was split into the Ministry of Economic Development, Trade and Employment (MEDTE) and the Ministry of Research and Innovation (MRI).*

Currently, there are 36 acts prescribed (in whole or in part) in O. Reg. 73/94; ministries must give notice of proposals for environmentally significant regulations made under 35 of these prescribed acts.

Five ministries – MCS, MOE, MMAH, MNR and MNDM – are prescribed for purposes of classifying instruments (e.g., permits, licences and approvals) issued under acts administered by these ministries. Only instruments that are classified in O. Reg. 681/94 made under the *EBR* are subject to the Act. Currently, select instruments issued under 18 different acts are classified. The responsible ministries must give notice on the Environmental Registry of any proposals and decisions related to these instruments.

Please see the ECO's website (www.eco.on.ca) for an up-to-date list of ministries, laws and instruments prescribed under the *EBR*.

## Applications for Review and Investigation

The *EBR* gives Ontario residents the right to ask a prescribed ministry to review an existing environmentally significant policy, act, regulation or instrument. The public also has the right to ask the government to review the need for developing a new policy, act or regulation. Such requests are called "applications for review." Specific acts must be prescribed in order for those acts and the regulations made under them to be subject to the *EBR* application for review requirements. Instruments prescribed under O. Reg. 681/94 are also subject to *EBR* applications for review.

There are currently nine ministries prescribed for purposes of applications for review under the *EBR*:

- Ministry of Agriculture, Food and Rural Affairs (OMAFRA)*
- Ministry of Consumer Services (MCS)
- Ministry of Energy (ENG)
- Ministry of the Environment (MOE)
- Ministry of Health and Long-Term Care (MOHLTC)
- Ministry of Municipal Affairs and Housing (MMAH)
- Ministry of Natural Resources (MNR)
- Ministry of Northern Development and Mines (MNDM)
- Ministry of Transportation (MTO)

**In February 2013, OMAFRA was divided into two ministries: the Ministry of Agriculture and Food (OMAF) and the Ministry of Rural Affairs (MRA).*

Furthermore, the *EBR* provides Ontarians with the right to ask a prescribed ministry to investigate alleged contraventions of prescribed acts, regulations or instruments; this is called an "application for investigation." Applications for investigation may be filed for alleged contraventions under 19 different laws prescribed under the *EBR*, and for contraventions of any regulations under these laws. Applications for investigation may also be filed for alleged contraventions of prescribed instruments issued under 17 laws, administered by five ministries (MCS, MOE, MMAH, MNR, and MNDM).

Applications are a powerful tool that the public can use to influence government decision making and to ensure environmental laws and policies are upheld. Ministries who receive applications must follow the procedures set out in the *EBR* when considering those applications. The ECO reviews and reports on how ministries handle these applications. For the ECO's reviews of applications decided in this reporting year, please see Sections 2 and 3 of the Supplement to this Annual Report.

## Appeals, Lawsuits and Whistleblower Protection

The *EBR* provides Ontarians with increased access to courts and tribunals for the purposes of environmental protection. The *EBR* provides a special right for members of the public to appeal (i.e., challenge) certain ministry decisions regarding instruments. Ontario residents may also take court action to prevent harm to a public resource and to seek damages for environmental harm caused by a public nuisance. Finally, the *EBR* also provides enhanced protection for employees who suffer reprisals from their employers for exercising their *EBR* rights or for complying with or seeking the enforcement of environmental rules.

For information about the public's use of *EBR* appeals, lawsuits and whistleblower protection during this reporting year, please see Section 1.8 of this Annual Report.

## 1.2 Use and Misuse of the Environmental Registry

The Environmental Registry is a key mechanism for the public to exercise their rights under the *Environmental Bill of Rights, 1993* (*EBR*) to participate in government environmental decision making. Prescribed ministries are required to post notices of proposals for environmentally significant policies, acts, regulations and instruments on the Environmental Registry, and to provide the public with a minimum of 30 days to comment on such proposals. The public has the option of submitting their comments electronically, directly on the Environmental Registry. Ministries must consider all public comments received when making a final decision.

The Environmental Registry also provides other information that may assist the public in exercising their *EBR* rights, including:

- notice of appeals and leave to appeal applications related to prescribed instruments;
- background information about the *EBR*;
- links to the full text of the *EBR* and its regulations;
- links to prescribed ministries' Statements of Environmental Values (SEVs);
- links, in some cases, to the full text of proposed and final policies, acts, regulations and instruments; and
- links, in some cases, to other information relevant to a proposal.

The Environmental Registry is maintained by the Ministry of the Environment (MOE). The ECO monitors ministries' use of the Environmental Registry to ensure that prescribed ministries are satisfying their obligations under the *EBR*, and that the public's participation rights are being respected.

### Ministry Use of the Registry in 2012/2013

In this reporting year, prescribed ministries posted 73 proposal notices on the Environmental Registry for policies, acts and regulations. Of these 73 proposal notices, 54 were for policies, 17 were for regulations, and only 2 were for proposed acts (Table 1.2.1). However, it should be noted that a number of environmentally significant acts that are prescribed by the *EBR* were amended in this reporting year by the 2012 provincial budget, Bill 55, the *Strong Action for Ontario Act (Budget Measures), 2012*. These statutory amendments were not posted on the Environmental Registry because section 33 of the *EBR* provides an exemption from the usual *EBR* public notice and consultation requirements for proposals that form part of, or give effect to, a budget. For more information, see Part 2.2 of this Annual Report.

Under section 58 of the *EBR*, the ECO is required to produce a list of all proposal notices posted on the Environmental Registry between April 1, 2012 and March 31, 2013 that were not decided by March 31, 2013. Open proposals at the end of our reporting year included 1,222 instruments, 42 policies, 11 regulations, and 2 acts. A detailed list is available from the ECO by special request.

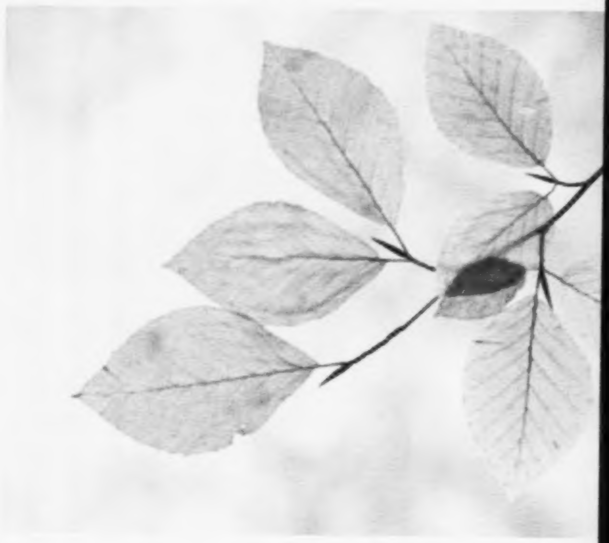


TABLE 1.2.1

Number of Proposal Notices for Policies, Acts and Regulations Posted on the Environmental Registry in the ECO's 2012/2013 Reporting Year (April 1, 2012 – March 31, 2013), by Prescribed Ministry

| Ministry | Total Number of Proposals Posted in 2012/2013 | Number of Policy Proposals | Number of Regulation Proposals | Number of Act Proposals |
|---|---|---|---|---|
| Agriculture, Food and Rural Affairs (OMAFRA) | 2 | 0 | 2 | 0 |
| Consumer Services (MCS) | 0 | 0 | 0 | 0 |
| Economic Development and Innovation (MEDI) | 0 | 0 | 0 | 0 |
| Education (EDU) | 1 | 1 | 0 | 0 |
| Energy (ENG) | 3 | 1 | 1 | 1 |
| Environment (MOE) | 14 | 8 | 5 | 1 |
| Government Services (MGS) | 0 | 0 | 0 | 0 |
| Health and Long-Term Care (MOHLTC) | 0 | 0 | 0 | 0 |
| Labour (MOL) | 0 | 0 | 0 | 0 |
| Municipal Affairs and Housing (MMAH) | 3 | 2 | 1 | 0 |
| Natural Resources (MNR) | 38 | 30 | 8 | 0 |
| Northern Development and Mines (MNDM) | 5 | 5 | 0 | 0 |
| Tourism, Culture and Sport (MTCS) | 2 | 2 | 0 | 0 |
| Transportation (MTO) | 5 | 5 | 0 | 0 |
| **TOTAL** | **73** | **54** | **17** | **2** |

## Quality of Registry Notices – No Opportunity to View Relevant Documents

Proposal notices on the Environmental Registry must clearly explain the nature of the proposal and the potential impacts of the proposal on the environment. Likewise, decision notices should explain the ministry's final decision and the effect of public consultation on that decision. It is also helpful for proposal notices to include links to supporting documentation, such as the draft text of a proposed regulation, and for decision notices to include links to relevant documents such as finalized policies or approvals.

The proposal notices posted on the Environmental Registry during this reporting year generally included clear explanations of the actions that ministries were proposing, and often included links to related information on the ministries' websites and elsewhere. Decision notices posted this year were also generally well explained, including descriptions of how a ministry considered public comments in making the final decision.

However, in this reporting year, the ECO was disappointed to observe that several ministries often did not include copies of key documents directly relevant to the proposals and decisions in question. For example, several ministries, including MNR, OMAFRA, MMAH, MNDM and ENG, failed on one or more occasions to include links to draft regulations in regulation proposal notices. When the ECO urged MNR to post draft regulations associated with three separate regulation proposal notices for implementation of MNR's approvals modernization program (see Section 1.16 of the Supplement to this Annual Report), the ministry responded that the proposal notices met the requirement of the *EBR* to provide "a brief description of the proposal" and that "MNR is of the opinion that the 'plain language' wording used in the notices will facilitate public consultation." Similarly, although the ECO urged OMAFRA to post a link to the draft regulatory text for its proposal to amend the general regulation under the *Bees Act*, the ministry did not do so.

Ministries also frequently failed to attach copies of draft or finalized instruments (e.g., licences, permits and other authorizations) to instrument proposal and decision notices. For example, MNR routinely failed to attach copies of licences issued under the *Aggregate Resources Act* to its decision notices.

MNR has been particularly egregious in this reporting year in its failure to include relevant key documents in Environmental Registry notices. In addition to the cases identified above, other examples include: MNR's failure to post copies of three finalized Community-based Land Use Plans under the *Far North Act, 2010* in policy decision notices for those plans; and MNR's failure not only to include a background document referenced in the proposed Lake Simcoe Fish Community Objectives but, in the decision notice, a copy of the finalized Objectives themselves.

There is no explicit legal requirement for ministries to provide the precise draft text of proposed regulations or copies of proposed or final instruments and policies in Environmental Registry notices; however, doing so would be a reasonable application of the law. When ministries opt not to do so, it can hinder the public's ability to provide meaningful comments on these environmentally significant proposals. In particular, failing to post finalized approvals in instrument decision notices can deprive the public of information about the specific activities authorized by an instrument and the conditions of approval; it can also pose challenges for members of the public who may have an interest in appealing the issuance of such an instrument, as it may not be clear whether there are valid grounds for seeking leave to appeal.

More generally, failing to provide this basic and salient information in Environmental Registry notices undermines the *EBR* goals of public awareness and transparency. The ECO urges all prescribed ministries to ensure that links to all key documents related to a proposal – particularly any documents that form the subject matter of the proposal itself – are included in their Environmental Registry notices.

## Information Notices

When ministries are not required to post a proposal notice on the Environmental Registry for public comment, they may still provide a public service by posting an "information notice." These notices keep Ontarians informed of important environmental developments.

### 1.2.1 Quality of the Environmental Registry

The Environmental Registry is the public's primary connection to the *Environmental Bill of Rights, 1993* (*EBR*). It is where the public can find environmentally significant government proposals and decisions, submit comments on proposals, and obtain information about appealing certain decisions. The Environmental Registry is also a source – or at least it should be – of helpful background information about the *EBR* and links to relevant ministries, statutes and other materials.

The Ministry of the Environment (MOE) is responsible for maintaining the Environmental Registry. From time to time the ECO reports problems with the Environmental Registry to MOE staff and attempts to have those problems resolved. However, the ECO's list of problems is growing longer, and several aspects of the Environmental Registry remain inadequate. For example, in Part 1 of the ECO's 2011/2012 Annual Report, the ECO identified a problem with the information on the Environmental Registry about appealing renewable energy approvals (REAs). A year later, that problem has still not been fixed.

While the ECO appreciates that there are both technical and financial challenges to fixing some of the problems with the Environmental Registry, it is simply unacceptable that these problems persist. This key portal to the *EBR* is becoming a barrier to the public's participation. It is time for MOE to make the changes necessary to bring the Environmental Registry up to date and to make it a more functional, user-friendly means for the public to participate in environmental decision making.

To that end, the ECO has identified five problems with the Environmental Registry – in addition to the problem with the REA decision notices – that, if fixed, would go a long way to resolving the ECO's concerns:

1. The Environmental Registry's lists of prescribed ministries and acts are woefully out of date. The lists include ministries that no longer exist or whose names have been changed, and acts that have been repealed; it also omits the names of some currently prescribed ministries and acts. These lists can make it difficult for members of the public to undertake a complete or credible search.

2. Background information on the Environmental Registry – particularly under Frequently Asked Questions ("FAQs") and "Links" – is also outdated. Lists of ministries and acts are incomplete and inaccurate; Statements of Environmental Values (SEVs) are provided for ministries that no longer exist; and many links to external information are broken.

3. The list of prescribed instruments in the search template is difficult to use effectively. A member of the public who wishes to search a specific instrument type must scroll through a long list to find the instrument they are looking for.

4. By default, a search on the Environmental Registry only searches notices posted in the last year. However, this may not be clear to the searcher, and it is not intuitive that one must use the "published date" filter to search all notices from all years. This flaw could yield misleading results if a searcher does not realize there is a date restriction on their search.

5. The Geographic Location Filters do not function as intended and, if used, can lead to inaccurate search results. Although MOE has told the ECO that it will be removing this feature, to date it has not done so.

It is critical that the quality of the Environmental Registry be maintained at a high standard. When the quality of the Environmental Registry begins to deteriorate – in terms of available information, as well as functionality of the interface itself – so too does the public's ability to exercise their *EBR* rights. The ECO urges MOE to rectify the Environmental Registry's deficiencies, and any new problems that arise in the future, without delay.

Significant differences exist between regular "proposal notices" posted on the Environmental Registry and "information notices." With regular proposal notices, a ministry is required to invite and consider public comments, and post a decision notice explaining the effect of comments on the ministry's decision. The ECO then reviews the extent to which the ministry considered those comments and its SEV when it made the final decision. Information notices do not usually include the right to comment and are not followed by a decision notice that clearly indicates what was finally decided. Information notices should only be used by ministries when a regular proposal notice is not required under the *EBR*.

In the 2012/2013 reporting year, seven ministries posted 192 information notices on the Environmental Registry (see Table 1.2.2). Some examples of information notices in this reporting year included: Minister's Zoning Orders, Forest Management Plans, certain permits issued under the *Endangered Species Act, 2007*, and amendments to Renewable Energy Approvals under the *Environmental Protection Act*.

TABLE 1.2.2.

Number of Information Notices Posted by Ministry, 2012/2013 Reporting Year.

| Ministry | Number of Information Notices |
|---|---|
| Ministry of Energy | 3 |
| Ministry of Infrastructure | 1 |
| Ministry of Municipal Affairs and Housing | 16 |
| Ministry of Natural Resources | 117 |
| Ministry of Northern Development and Mines | 5 |
| Ministry of the Environment | 48 |
| Ministry of Transportation | 2 |
| **TOTAL** | **192** |

An example of a good use of an information notice is MNR's provision of information regarding the issuance of a non-prescribed permit under the *Fish and Wildlife Conservation Act, 1997* that allowed a company to remove a bald eagle's nest due to the construction of wind turbines in the area (Environmental Registry #011-7916). This was a controversial decision and MNR should be commended for using an information notice to explain – and provide advance notice of – the decision. The ministry could have stayed silent on the issue, but was clearly aware it would be a matter of public interest and posted an information notice despite the backlash the ministry received – and likely anticipated.

## Exception Notices

In certain situations, the *EBR* relieves prescribed ministries of their obligation to post environmentally significant proposals on the Environmental Registry for public comment. There are two main instances in which ministries can post an "exception notice" to inform the public of a decision and explain why it was not posted for public comment. First, there is an "emergency" exception. Ministries are permitted to post an exception notice under section 29 of the *EBR* when the delay in waiting for public comment would result in danger to public health or safety, harm or serious risk to the environment, or injury or damage to property. Second, there is an "equivalent public participation" exception. Ministries can post an environmentally significant proposal as an exception notice under section 30 of the *EBR* when the proposal will be or has already been considered in another public participation process that is substantially equivalent to the process required under the *EBR*.

During the 2012/2013 reporting year, three ministries (MOE, MNR and MNDM) posted six exception notices on the Environmental Registry. The ECO believes that the exception notices posted on the Environmental Registry in 2012/2013 were acceptable uses of the *EBR*'s exception provisions. For example, MOE posted an exception notice (#011-6105) for an order issued under the *Environmental Protection Act* to address the threat of a spill of water potentially contaminated with polychlorinated biphenyl (PCB), and the accessibility of PCB waste to unauthorized personnel. The ministry stated that the unsecure PCB storage site posed a risk to human health, the environment and property damage.

## Failures to Comply with *EBR* Public Consultation Requirements

The ECO has a statutory obligation to report to the Legislature on how well the ministries are complying with their obligations under the *EBR* to notify and consult with the public on environmentally significant proposals through the Environmental Registry. The ministries' obligations seem simple enough, yet, every year, the ECO observes instances in which the requirements for notification and comment are circumvented (see Table 1.2.3).

Sometimes, ministries improperly post proposals that should be posted as regular proposal notices as information notices, which do not include the right to comment and are not followed by a decision notice that clearly indicates what was finally decided.

In some cases, ministries post information notices on the Environmental Registry that do seek the public's comments, but in failing to follow the proper *EBR* process to post proposal and decision notices, these ministries still deny the public some of its *EBR* rights. Seeking comments with neither the requirement to consider them, nor the accountability of having the ECO verify compliance, is at best misleading to the public, and at worst, a mockery of the instructions of the Legislature.

Other times, ministries fail to post any notice at all on the Environmental Registry. In these cases, ministries often misunderstand or deliberately circumvent their *EBR* obligations. For example, the *EBR* is quite clear that environmentally significant policies – including guidelines, programs, plans or manuals – must be posted as proposal notices on the Environmental Registry for public comment; yet, with disturbing frequency, this is not done.

TABLE 1.2.3.

Failure to Properly Post on the Environmental Registry

**Ministry of Economic Development and Innovation**
- Ontario's Water Sector Strategy

**Ministry of the Environment**
- Soil Management – Guide for Best Management Practices (draft)
- Implementation of the Cancellation of Municipal Hazardous or Special Waste Program

**Ministry of Natural Resources**
- Exemption for the *Endangered Species Act, 2007* protection provisions for the eastern meadowlark and bobolink for certain activities
- Niagara Escarpment Parks and Open Space System Planning Manual
- North Beach Provincial Park Boundary Expansion
- Changing the Designation of 10 Parks to Non-Operating Status
- Sustainability in a Changing Climate: A Strategy for the Ontario Ministry of Natural Resources, 2011-2014
- Amendments to 36 Regulations under the *Conservation Authorities Act* (Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses)

## No Chance to Comment: MNR's Climate Change Strategy

In 2011, MNR released Sustainability in a Changing Climate, its climate change strategy for 2011 through 2014. The strategy outlines the ministry's research and management priorities under three key themes: understanding the impacts, risks and vulnerabilities associated with climate change; mitigation of climate change; and adaptation to the impacts of climate change. Within each of these themes, MNR articulates specific goals and strategies.

The ministry did not post a proposal notice for this policy for public review on the Environmental Registry. In addition, MNR did not make the strategy publicly available, although it is openly referred to in a number of other ministry documents.

The ECO wrote to the ministry in November 2012, stating that the policy is environmentally significant and should have been posted on the Environmental Registry as a policy proposal for public consultation. The ECO requested that MNR explain: how it had determined that the policy did not need to be posted as a policy proposal; how the ministry's SEV had been considered; and, whether there was any public consultation during the development of the policy.

Almost eight months later MNR replied to this enquiry, confirming that it had neither solicited public comments nor considered its SEV before finalizing the strategy, as the ministry "did not deem this internal guide as having a significant impact on the environment." However, the ministry acknowledged that the strategy "could have been treated as a policy proposal for public comment on the Environmental Registry and this will be considered during future strategy updates." MNR also committed to making the strategy publicly available on its climate change website.

MNR's climate change strategy is clearly an environmentally significant policy, with wide-ranging implications for the ministry's ability to address climate change issues, and should have been posted on the Environmental Registry for public consultation. The ECO again reminds the ministry that all environmentally significant policies, regardless of whether the ministry gives them labels such as "internal" strategies or "interim" policies, are subject to full public notice and consultation under the *EBR*.

## No Chance to Comment: MNR Changing the Designation of 10 Parks to Non-Operating Status

In September 2012, MNR announced that it would be changing the designation of 10 Ontario parks to non-operating status, including: Caliper Lake, Fushimi Lake, Greenwater, Ivanhoe Lake, Mississagi, Obatanga, René Brunelle, Springwater, The Shoals and Tidewater Provincial Parks. MNR later announced that it would be working with municipalities to continue operations at Fushimi Lake, René Brunelle and Ivanhoe Lake Provincial Parks under a two-year pilot project. For further information please see Part 4.6 of this Annual Report.

The ECO wrote to MNR requesting further details on these changes in operating status, including the timing of moving these parks to non-operating status, whether infrastructure at the parks would be decommissioned, and when the public would be consulted via the Environmental Registry on the change of management direction for these parks.

MNR replied that it had determined that the change in status and the decommissioning of facilities at these parks would not have a significant effect on the environment. The ministry stated that protection for the parks would be maintained under the *Provincial Parks and Conservation Reserves Act, 2006*, that the public would continue to be able to use non-operating parks, and existing processes and procedures would remain in effect to protect the environment. MNR also stated that any changes to the park management plans would be administrative updates and would therefore not necessitate public consultation.

The ECO disagrees with MNR's position that the decision to change the operating status of these parks is not environmentally significant. This decision constitutes a substantive change to the management of these protected areas, which is, by its very nature, an environmentally significant decision. Public consultation on this decision was clearly required under the *EBR*, and the ministry's failure to do so is troubling.

## 1.2.2 Orphaned Proposal Notices on the Environmental Registry

The proposal notice is just the beginning of the public consultation process under the *Environmental Bill of Rights, 1993* (*EBR*). After a proposal notice has been posted on the Environmental Registry, the public may submit comments on the proposal, and then, once the comments have been considered and a decision has been made whether or not to implement the proposal, the responsible ministry is required to give notice on the Registry "[a]s soon as reasonably possible."

In reality, this process does not always occur as envisioned under the *EBR* – there are many instances in which a decision has been made, but a decision notice is never posted on the Registry. In addition, proposals for which a decision has not been made can sit on the Registry for years without any updates.

For example, in 2005, the Ministry of Natural Resources (MNR) posted a notice on the Environmental Registry proposing amendments to seven statutes administered by MNR to "clarify ambiguities, promote compliance, bring statutes up to date, and simplify decision-making processes" (Environmental Registry #AB05E4001). Although a number of the proposed amendments were enacted by the *Good Government Act, 2006*, this major proposal notice remains unchanged more than seven years after it was posted on the Environmental Registry, without explaining that a decision has been made or how the public's comments on the proposal were considered in making the decision.

### *Orphaned Instrument Proposal Notices*

Failing to post a decision notice for any type of environmentally significant proposal is problematic. However, the consequences of failing to post a decision for a prescribed instrument are potentially more serious. After an instrument decision notice has been posted, the public's appeal rights established under the *EBR* are engaged. Any resident of Ontario is entitled to seek leave to appeal a decision within 15 days of the date that a decision notice is posted on the Environmental Registry, provided that they have an interest in the decision, and that another person (e.g., the instrument holder) has a right under another act to appeal. If a decision notice is never posted, the third party appeal rights established under the *EBR* are never engaged, which not only places potential appellants at a disadvantage, but also undermines certainty for instrument holders.

A search of the Environmental Registry in October 2012 revealed a total of 1,889 instrument proposals that the ECO considered to be potentially outdated (i.e., that were posted prior to October 31, 2011). Five ministries were responsible for these proposal notices, as follows:

- Ministry of the Environment (MOE): 1,501
- Ministry of Natural Resources (MNR): 268
- Ministry of Municipal Affairs and Housing (MMAH): 105
- Ministry of Northern Development and Mines (MNDM): 8
- Ministry of Consumer Services (MCS; responsible for the Technical Standards and Safety Authority [TSSA]): 7

The ECO requested an update on the status of a selection of 75 potentially outdated instrument proposal notices from all relevant ministries. The results of the ministries' responses are detailed in Table 1.2.2.1.

**TABLE 1.2.2.1.**

Status of Selected Instrument Proposals Posted on the Environmental Registry Between January 1, 1994 and October 31, 2011

| Ministry | Updates Requested | Issued | Refused | Still Under Consider-ation | Abandoned or Posted in Error |
|---|---|---|---|---|---|
| MMAH | 20 | 5 | 0 | 10 | 5 |
| MNR | 20 | 9 | 2 | 7 | 2 |
| MNDM | 8 | 2 | 2 | 3 | 1 |
| MOE | 20 | 8 | 2 | 2 | 8 |
| MCS (TSSA) | 7 | 4 | 0 | 0 | 3 |
| **TOTAL** | **75** | **28 (37.3%)** | **6 (8%)** | **22 (29.3%)** | **19 (25.3%)** |

These results show that, in many cases, ministries are failing to post decision notices after making decisions on instruments. In two cases, a decision notice had been posted for an issued instrument, but was not linked to the original proposal notice, and as such, it remained an open proposal on the Environmental Registry.

Approximately one-quarter of instrument proposals were either abandoned or posted in error, but were not closed off on the Environmental Registry with a decision notice. Although a decision is not made per se in such circumstances, ministries should ensure that notice is given on the Environmental Registry when a proposal is abandoned by a proponent or has been posted in error. Again, this will inform interested members of the public and will help to ensure the accuracy of the Registry.

Almost one-third of the selected instrument proposals were still under consideration by ministries. Ministries occasionally post updates on the Environmental Registry in cases in which proposals under consideration take longer than usual periods of time. While not required under the *EBR*, the ECO encourages ministries to consider this option more regularly. This will keep interested members of the public informed about the progress of a proposal, and will ultimately result in a more transparent decision-making process.

The ECO urges ministries to post decision notices promptly, and make certain that open proposals are closed off. This will ensure that members of the public are able to exercise their appeal rights, and will provide greater certainty to instrument holders. Both MOE and MNR have indicated that they are undergoing processes to update their outdated proposal notices.

## 1.3 No Right to Know: Instruments and Section 32 of the *EBR*

The *Environmental Bill of Rights, 1993* (*EBR*) requires ministries to post a proposal notice on the Environmental Registry for any instrument (e.g., permit, licence, etc.) that is classified under O. Reg. 681/94 made under the *EBR*. The public has a right to submit comments on proposals to issue such instruments, and the ministry is obliged to consider the public comments and post a decision notice on the Environmental Registry explaining the effect of those comments on the ministry's decision. This process is at the core of the *EBR* principles of transparency and public consultation in environmental decision making.

Section 32 of the *EBR*, however, excuses ministries from soliciting public comments if an instrument is being issued as part of a project that has been either approved or exempted under the *Environmental Assessment Act* (*EAA*), including under a Class Environmental Assessment (Class EA). The intent of this exemption is to avoid duplication because, in theory, the *EAA* has public consultation requirements similar to the *EBR* consultation process. However, in practice, this is often not the case. Frequently, there is no equivalent public consultation on which to justify the exemption. Exempting instruments proposed under a Class EA is especially egregious, because ministries treat the parent Class EA documents themselves – which sets out the pre-approval requirements of a project or activity subject to the Class EA – as being exempt from the public participation requirements of the *EBR* (for more information, see Part 1.4 of this Annual Report).

As an example, the ECO highlights specific concerns regarding the application of the section 32 exemption to permits issued under the *Endangered Species Act, 2007*, below.

### *ESA* Instruments and Section 32 of the *EBR*

Many species of plants and animals are at risk of extinction or extirpation due to human activities. The *Endangered Species Act, 2007* (*ESA*) provides protection for species at risk and their habitats. However, in some cases, the Ministry of Natural Resources (MNR) has the authority to issue permits and enter into agreements to authorize activities that would otherwise be prohibited, such as killing an endangered or threatened species or destroying their habitat. While these tools allow for flexibility in the implementation of the *ESA*, they must be used carefully. Endangered and threatened plants and animals are, by definition, at risk of being lost at the provincial level – and in many cases, the global level – unless steps are taken to safeguard and protect them.

In our 2009 Special Report, The Last Line of Defence – A Review of Ontario's New Protections for Species at Risk, the ECO stressed that such approvals should be classified as instruments under the *EBR* to ensure that these environmentally significant decisions are made transparently and are open to public scrutiny. While some types of *ESA* permits and agreements have been classified under the *EBR* as instruments, others have not. Specifically, instruments that authorize harm to species at risk or their habitat are not classified and are therefore not subject to *EBR* public consultation requirements if:

- the proposal involves an animal;
- the proponent is the Crown, a municipality or a public body; or
- the authorization applies on Crown land or in a provincial park.

The ministry's rationale for these exclusions is that such proposals fall under the Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects (2003), and thus, based on the principle of section 32 of the *EBR*, such permits and agreements are exempt from *EBR* public notice requirements. However, the public consultation requirements of this Class EA are not equivalent to those of the *EBR*. Moreover, the ministry's Class EA predates the ESA and, therefore, does not properly address the issuance of *ESA* permits and agreements.

Since 2007, the ministry has issued over 500 *ESA* permits and agreements. However, only 41 of these approvals (about 8 per cent) were required to be posted on the Environmental Registry as instrument proposals. As a result, the public has been deprived of the right to participate in the majority of decisions in which harm to endangered or threatened species has been allowed.

The excessively broad application of section 32 of the *EBR* is actually depriving the public of the very rights that the *EBR* is intended to safeguard. Consequently, many environmentally significant decisions are being made without public notification, and indeed, no public scrutiny at all. To its credit, although not required to do so, MNR has often posted information notices on the Environmental Registry to alert the public to decisions about non-prescribed *ESA* instruments; however, this work-around solution does not provide the same public rights.

Public scrutiny is a key driver for improving environmental decision making. Shrouding these decisions from public scrutiny based on section 32 of the *EBR* is inconsistent with the goals of this legislation. The ECO is disappointed that MNR continues to use section 32 of the *EBR* as a way to avoid being held accountable for decisions regarding the protection and recovery of species at risk in Ontario.

### 1.3.1 MOE'S Review of the *EBR*

In December 2010, the ECO received an application requesting a review of the *Environmental Bill of Rights, 1993* (*EBR*) and its regulations. The applicants argued that, since the *EBR* came into force in 1994, it has never undergone any formal review. Further, the applicants noted that despite the identification of shortcomings in the legislation over the years, the statute has remained largely unchanged.

The applicants identified a number of key issues with the existing legislation, and urged the Ministry of the Environment (MOE) to undertake a formal public review of the *EBR* to solicit input on changes to the current regime, to better achieve the broad purposes of the legislation. The applicants' top 10 issues requiring a review included the need to fix the section 32 "EA exception" for instruments that implement an undertaking under the *Environmental Assessment Act*.

In March 2011, MOE advised the applicants that it would undertake the requested review. MOE stated that "the Ministry's review will examine certain components of the *EBR*, as determined necessary by the Ministry after further deliberation and references to some of the matters raised in your application." Although well over two years have passed since MOE agreed to undertake the review, the ministry has not yet completed it.

For more information about this application, please see Section 2.2.6 of the Supplement to this Annual Report.

## 1.4 Class Environmental Assessments and the Environmental Registry

In 1975, the Ontario government enacted a bold new planning process, called environmental assessment (EA), through the *Environmental Assessment Act* (*EAA*). The intent of an EA is to determine and analyze in an open and transparent manner the risks, impacts, and alternatives of an "undertaking" (i.e., an enterprise, activity, plan, or program) before it is permitted to proceed. The *EAA* requires an EA to be conducted for any undertaking of the provincial government, a municipality, or a public body, unless exempt by order or regulation. Certain private sector undertakings are also specifically designated by regulation as undertakings to which the *EAA* applies. There are two main types of EA planning and approval processes used in Ontario: the individual EA and the Class EA. Under an individual EA process, the proponent cannot proceed with the undertaking unless approved by the Minister of the Environment. A Class EA sets out a streamlined, self-assessment process for a defined class of undertakings to which the *EAA* applies.

In recent years the ECO has become increasingly troubled by the repeated failure of prescribed ministries to adequately consult the public on the development of, or revisions to, Class EAs. Prescribed ministries are failing to post policy proposal notices on the Environmental Registry for new Class EAs or amendments to existing Class EAs, which undermines the intent of the *EBR* and the public's ability to fully participate in these environmentally significant decisions.

## Class EAs in Ontario

Unlike the individual EA, projects or activities that fall within a Class EA are pre-approved provided that the proponent follows the requirements identified in the Class EA (also referred to as a parent Class EA document), which is approved by the Minister. Class EAs are intended for certain classes of undertakings that are carried out frequently, with generally predictable environmental effects that can be readily managed (e.g., roads, highways, forest management activities, water infrastructure). As such, the Class EA process is typically less extensive than the individual EA process. Most undertakings to which the *EAA* applies proceed through one of 11 approved Class EAs, with very few undertakings now subject to an individual EA (Table 1.4.1).

**TABLE 1.4.1.**

Approved Class Environmental Assessments in Ontario (as of June 2013) (Source: Ministry of the Environment).

| Approved Class Environmental Assessment | Proponent |
|---|---|
| A Class Environmental Assessment for Activities of the Ministry of Northern Development and Mines under the *Mining Act* | Ministry of Northern Development and Mines |
| Class Environmental Assessment for Waterpower Projects | Ontario Waterpower Association |
| Municipal Class Environmental Assessment – amended | Municipal Engineers Association |
| MNR's Class Environmental Assessment Approval for Forest Management on Crown Lands in Ontario (Declaration Order MNR-71; Amending Declaration Order MNR 71/2) | Ministry of Natural Resources |
| Class Environmental Assessment for Provincial Parks and Conservation Reserves | Ministry of Natural Resources |
| Class EA Process for the Ministry of Energy and Infrastructure for Realty Activities Other than Electricity Projects | Infrastructure Ontario |
| GO Transit Class Environmental Assessment Document | GO Transit |
| Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects | Ministry of Natural Resources |
| Class Environmental Assessment for Remedial Flood and Erosion Control Projects | Conservation Ontario |
| Class Environmental Assessment for Provincial Transportation Facilities | Ministry of Transportation |
| Class Environmental Assessment for Minor Transmission Facilities | Hydro One |

In general, the preparation, review, consultation requirements, and approval of a Class EA parent document are similar to the individual EA process. Both include opportunities for public consultation and review of the terms of reference, and both must be approved by the Minister of the Environment.

Some Class EAs currently include monitoring and reporting provisions, which require the proponent to submit annual reports to the Ministry of the Environment (MOE) and to review the Class EA every five years. The Code of Practice – Preparing, Reviewing and Using Class Environmental Assessments in Ontario (2009) states that these provisions will eventually be included in all Class EAs, upon each Class EA's renewal.

## Use of the Environmental Registry to Consult the Public on Class EAs

The *EBR* requires prescribed ministries to post a proposal for an environmentally significant policy on the Environmental Registry at least 30 days before the proposal is implemented. The ECO has long maintained the position that a Class EA and its terms of reference are environmentally significant policies under the *EBR*.

Recently, however, prescribed ministries have been using information notices, rather than policy proposal notices, to notify the public of new Class EAs and amendments to existing Class EAs and terms of reference. Information notices are an inferior form of public notice that does not confer any *EBR* rights (for more information, see Part 1.3 of this Annual Report). For example, the Ministry of Northern Development and Mines posted a series of nine information notices on the Environmental Registry during the development of its Class EA for Activities of the Ministry of Northern Development and Mines under the *Mining Act* (see Part 1.4.1 of this Annual Report).

Since 2001, the ECO has advised MOE and all prescribed ministries of their obligation under the *EBR* to post proposed Class EA parent documents and terms of reference on the Environmental Registry using proposal notices. Ministries assert that they are not obligated under the *EBR* to post these documents as policy proposals because, in their opinion, these documents form part

of an approval under the *EAA*, and thus meet the definition of an "instrument." They therefore conclude that, as these are instruments that are not classified under the *EBR*, they are not subject to the *EBR*'s mandatory public notice and consultation requirements.

In September 2011, the ECO met with MOE staff to discuss *EBR* notice and consultation requirements for Class EAs and Class EA terms of reference. At the conclusion of the meeting, MOE committed to conducting further internal discussions to clarify the ministry's position on this matter. In October 2012, MOE assured the ECO that it was still carefully considering the issue and would be in touch shortly. As of June 2013, there had been no further dialogue or resolution of this issue.

## ECO COMMENT

The ECO is disappointed that MOE and prescribed ministries refuse to acknowledge parent Class EA documents and their terms of reference as environmentally significant policies under the *EBR*. Under the *EBR*, a policy is "a program, plan or objective and includes guidelines or criteria to be used in making decisions about the issuance, amendment or revocation of instruments but does not include an Act, a regulation or an instrument," while an instrument is a "document of legal effect issued under an Act and includes a permit, licence, approval, authorization, direction or order issued under an Act...". The ECO firmly believes that parent Class EA documents are environmentally significant policies, not instruments: they set the rules for how proponents will categorize, plan, assess, and self-approve numerous projects with environmental impacts. Given that far more undertakings are processed under the 11 approved Class EAs than through the individual EA process, the criteria established within the parent Class EA are critically important.

MOE administers the *EAA* and approves Class EAs and Class EA terms of reference, so it has an obligation to post these policies on the Environmental Registry for full public consultation. If the Class EA proponent is a prescribed ministry, it also has an obligation to post the Class EA and Class EA terms of reference on the Environmental Registry. However, to avoid duplicate proposal notices in such cases, the ECO expects the policy to be posted once, by either the prescribed ministry or MOE. Posting these documents for public comment on the Environmental Registry would increase transparency and reduce current barriers to meaningful public participation during the development and review of Class EAs.

Additionally, the ECO encourages MOE and prescribed ministries to ensure that all Class EA monitoring and reporting documents, such as annual reports and five year review reports, are publicly accessible.

Currently some, but not all, of these documents are available to the public on the Environmental Registry and on proponent websites. These documents provide valuable information and could increase the public's ability to meaningfully participate in the review and amendment of current Class EAs.

| RECOMMENDATION 1 | *The ECO recommends that all Class EA terms of reference and parent documents be posted as policy proposals for public comment on the Environmental Registry.* |
|---|---|

## 1.4.1 Class EA for Activities of the Ministry of Northern Development and Mines under the *Mining Act*

The *Mining Act*, which was first enacted in 1869, encourages prospecting, staking and exploration for the development of mineral resources in Ontario. The Ministry of Northern Development of Mines (MNDM) administers the Act. While most private mining sector projects are not subject to the *Environmental Assessment Act* (*EAA*), certain MNDM activities under the *Mining Act* are.

After the government amended the *Mining Act* in 2009, MNDM finally began the process of developing a long overdue Class Environmental Assessment (Class EA) for mining activities in 2010 (for years, the ministry had used a stop-gap measure of relying on temporary "declaration orders," rather than conducting individual EAs). MOE approved the Class EA for Activities of the Ministry of Northern Development and Mines under the *Mining Act* on December 12, 2012. MNDM's Class EA provides a process for screening, evaluating and mitigating the potential environmental effects of a number of ministry undertakings under the *Mining Act*, including: discretionary tenure decisions, such as the disposition of Crown resources, conversion of existing land tenure, forfeiture or surrender of land title, and mine hazard rehabilitation activities by MNDM, mainly on Crown lands and abandoned mine sites (for more information on abandoned mine rehabilitation, see Part 5.4 of this Annual Report).

Although MNDM posted several information notices about the draft Class EA on the Environmental Registry, neither MOE nor MNDM posted a proposal notice for the Class EA – an environmentally significant policy – for full *EBR* public consultation on the Registry. Thus, Ontarians were deprived of the transparent and accountable *EBR* process that would not only have allowed them to comment on the proposed Class EA, but would have also provided an explanation of how the public's comments were considered by the ministry in reaching its final decision.

## 1.5 Ministries' Handling of Applications for Review and Investigation

If Ontario residents believe that the government's environmental policies are not sufficiently protective, they can ask prescribed ministries to review them or to review the need to develop new legal protections for the environment. Similarly, the public can ask ministries to conduct an investigation if they believe that specific environmental laws have been contravened. These public rights – established by the *Environmental Bill of Rights, 1993* (*EBR*) – are exercised through the submission of applications for review and applications for investigation (for more information, see Part 1.1 of this Annual Report).

In the 2012/2013 reporting year, the ECO received 18 applications for review and an additional 7 applications were carried forward from previous years. The applications were directed to the Ministries of Energy (ENG), Municipal Affairs and Housing (MMAH), Natural Resources (MNR), and Environment (MOE). They covered a wide range of topics, such as power plants, resource extraction in the Far North, and hydraulic fracturing. Both ENG and MMAH denied the applications they received, while MNR denied all but one application for review; by contrast, MOE agreed to undertake almost half of the 17 applications that it received (see Table 1.5.1). At the time of writing, two applications for review were still undecided.

**TABLE 1.5.1.**

Summary of Ministry Decisions on Applications for Review in 2012/2013

| Ministry | Submitted | Denied | Undertaken | Undecided |
|---|---|---|---|---|
| ENG | 1 | 1 | 0 | 0 |
| MMAH | 1 | 1 | 0 | 0 |
| MNR | 6 | 5 | 1 | 0 |
| MOE | 17 | 7 | 8 | 2 |
| **Total** | **25** | **14** | **9** | **2** |

The ECO received four applications for investigation in 2012/2013. In addition, two applications were carried forward from previous years. All of the applications were directed to MOE as they dealt primarily with alleged contraventions of the *Environmental Protection Act* in relation to industrial air emissions and contamination of soil and groundwater. The ministry denied two applications, but also undertook two investigations, as shown in Table 1.5.2.

**TABLE 1.5.2.**

Summary of Ministry Decisions on Applications for Investigation in 2012/2013

|  | Submitted | Denied | Undertaken | Undecided |
|---|---|---|---|---|
| MOE | 6 | 2 | 2 | 2 |

Many applications for review and investigation were denied, which is consistent with past trends. In several cases, the ECO believes that the applicants raised valid concerns and was

disappointed with the ministries' decisions to deny these applications. For a detailed review of all applications, please see Sections 2 and 3 of the Supplement to this Annual Report.

## Ministry Compliance with Application Timelines

In Part 1 of our 2011/2012 Annual Report, the ECO reported on the failure of MNR to meet the non-discretionary 60-day deadline to provide preliminary responses to several applications for review under the *EBR*.

Unfortunately, the ECO observed the continued failure of prescribed ministries to meet this legislated deadline in at least four cases this year. MNR was 21 days late and MOE was 20 days late in providing preliminary responses to an application requesting a review of the *Oil, Gas, Salt and Resources Act* regarding fracking (R2012006 and R2012005, respectively). MOE was also 32 days late responding to an application for review about the need to regulate low frequency noise and infrasound from wind turbines (R2012009), and 21 days late responding to an application for investigation regarding arsenic contamination (I2011005). For more information about these applications, please see Sections 2 and 3 of the Supplement to this Annual Report. While both ministries informed the applicants and the ECO that they might need more time to respond to certain applications – which the ECO appreciated in principle as it at least kept the applicants and the ECO informed about the status of those applications – it does not justify or excuse the ministries' consistent lateness in meeting the legislated deadline.

As the ECO noted in 2011/2012, the repeated failure of prescribed ministries to comply with non-discretionary *EBR* deadlines is an affront to the statutory instructions of the Legislature. The ECO will continue to monitor ministry compliance with application requirements, and urges all ministries – especially MOE – to meet the statutory timelines for responding to *EBR* applications.

## 1.6 Failure to Meet *EBR* Obligations for Statements of Environmental Values

Under section 8 of the *Environmental Bill of Rights, 1993* (*EBR*), each prescribed ministry is required to develop and publish a Statement of Environmental Values (SEV) that explains how the ministry will integrate environmental values with social, economic and scientific considerations when making decisions that affect the environment. No later than three months after becoming prescribed, ministries must post on the Environmental Registry a draft SEV for public review and comment. The *EBR* provides an additional six months during which ministries must finalize their SEV, following the public review period.

Under the *EBR*, prescribed ministries are required to consider their SEVs when making environmentally significant decisions. The goal of this *EBR* obligation is to improve decision making by forcing ministries to think about their core environmental principles.

### Ministry of Education and Ministry of Energy

The Ministry of Education (EDU) and the Ministry of Energy (ENG) were prescribed under the *EBR* in August 2012. Both ministries gave public notice on the Environmental Registry (#011-7406 and #011-7790) that they had finalized their SEVs after the end of the ECO's reporting year. The ECO is pleased that EDU and ENG complied with the timelines set out in the *EBR* for developing and publishing SEVs. The ECO may review these SEVs in a future annual report.

### Failure to Document SEV Consideration for Instruments

The ECO is required to report annually on ministries' compliance with the requirement to consider their SEVs. In order for the ECO to assess compliance, a prescribed ministry must be able to demonstrate, through documentation, that it considered its SEV when making environmentally significant decisions.

Typically, the ECO requests "SEV consideration documents" for all new acts, regulations and policies. In 2011 – after providing ample notice to applicable prescribed ministries – the ECO also began requesting proof of SEV consideration for select instrument decisions. Subsequently, the ECO was disappointed to find that some ministries were not documenting their SEV consideration for certain prescribed instruments to the ECO's satisfaction (for more information, see Chapter 5 of the ECO's 2011/2012 Annual Report, Part 1). The ECO and some ministries continue to disagree regarding what constitutes appropriate documentation of SEV consideration for prescribed instruments.

In 2012/2013, the ECO requested proof of SEV consideration for 193 instruments decisions about which the public submitted comments. However, ministries only provided about half of all requested documents, as detailed in Table 1.6.1. Only the Ministry of Municipal Affairs and Housing and the Ministy of Northern Development and Mines provided all of the SEV consideration documents that the ECO requested. The ECO was particularly dismayed by the seeming reluctance of MOE to provide our office with requested SEV documentation; at times, several months went by without any response from the ministry to the ECO's requests. While MOE gradually provided much of the requested information near the end of 2012, the ECO still had outstanding information requests to MOE related to dozens of decisions at the end of our reporting year.

TABLE 1.6.1.

Summary of Requests for SEV Consideration Documents for Instruments Issued Between April 1, 2012 and March 31, 2013.

| Ministry | Number of Instruments Issued | Number of SEV Consideration Document Requests | Number of SEV Consideration Documents Received |
|---|---|---|---|
| Environment | 1014 | 152 | 77 |
| Natural Resources | 57 | 21 | 9 |
| Municipal Affairs and Housing | 100 | 4 | 4 |
| Northern Development and Mines | 47 | 16 | 16 |

This level of response to the ECO's requests is unacceptable: ministries are required to document their SEV consideration for every decision that they make about a prescribed instrument; it should be a simple task to promptly forward this documentation to the ECO. It is evident that some ministries have not made significant progress in developing and/or improving their processes for documenting SEV consideration for instrument decisions.

The ECO is very disappointed that some ministries – in particular, the Ministry of the Environment (MOE) and the Ministry of Natural Resources (MNR) – continue to disregard our requests for evidence of their SEV consideration for instruments. The ECO must be provided with documentation that clearly demonstrates how a ministry's SEV was considered for environmentally significant decisions. Otherwise, it is not possible for the ECO to determine whether ministries are indeed taking SEV consideration seriously. The ECO urges MOE and MNR to promptly develop a new process or improve their existing processes for documenting SEV consideration when making instrument decisions that affect the environment.

## 1.7 Keeping the *EBR* in Sync

Keeping the *Environmental Bill of Rights, 1993* (*EBR*) "in sync" with the evolving nature of government is a major challenge. The frequent enactment of new laws, the occasional re-organization of government portfolios, and the creation of new ministries all need to be reflected in the *EBR* regulations (O. Reg. 73/94 and O. Reg. 681/94). The ECO encourages ministries to promptly update the *EBR* regulations so that Ontario residents can continue to participate in all environmentally significant decision making.

Further, some non-prescribed ministries and agencies make environmentally significant decisions, but there are no mechanisms through which they can be held accountable to the public because they are not subject to the *EBR*. The government's failure to prescribe appropriate ministries and agencies – as well as acts and instruments – undermines the intent of the *EBR* and deprives the public of its participatory rights. Moreover, the ECO is unable to scrutinize decisions of non-prescribed bodies in the same manner as decisions made by prescribed entities and is, therefore, hampered in our ability to report to the Members of Provincial Parliament. Here, the ECO highlights one ministry and one agency that should be prescribed under the *EBR*.

## Ministry of Infrastructure (MOI)

Over the years, the government ministry responsible for infrastructure has undergone many organizational changes that have resulted in successive barriers to becoming—and remaining—prescribed under the *EBR*. From 2005 to 2008, the ECO repeatedly requested, unsuccessfully, that the Ministry of Public Infrastructure Renewal (MPIR) be prescribed. In 2008, MPIR was joined with the Ministry of Energy (ENG) to form the Ministry of Energy and Infrastructure (MEI), which was prescribed in 2009. However, soon thereafter, in 2010, MEI was split into two separate ministries: the Ministry of Infrastructure (MOI) and ENG. Following this organizational change, the ECO requested that both of the separated ministries be prescribed. While ENG was prescribed in 2011, the government has yet to follow through with its commitment to also prescribe MOI under the *EBR* for Statement of Environmental Values consideration, posting proposal notices on the Environmental Registry for notice and comment, and for applications for review.

MOI oversees a number of environmentally significant acts (e.g., the *Places to Grow Act, 2005*), regulations, policies and agencies (e.g., Infrastructure Ontario). It is important that the public be given the opportunity to participate in MOI's environmentally significant decisions relating to public infrastructure, growth, and development.

In October and November 2012, notwithstanding its non-prescribed status, MOI posted one information notice and one proposal notice on the Environmental Registry. Nevertheless, the public continues to be denied its full *EBR* rights because MOI is not prescribed. The ECO is very disappointed that there is still no significant progress on this matter, and strongly urges the Ontario government to move forward in prescribing MOI without further delay.

## Metrolinx

Created in 2006, Metrolinx (formerly the Greater Toronto Transportation Authority) is a Crown agency overseen by the Ministry of Transportation (MTO) – a prescribed ministry. Under the *Metrolinx Act, 2006*, Metrolinx was delegated statutory responsibility to create a regional transportation plan for the Greater Toronto and Hamilton Area (GTHA), which encompasses the Cities of Toronto and Hamilton, along with four surrounding regional municipalities: Durham, Halton, Peel and York. The agency was further directed to design, develop and construct a transportation system as outlined in the transportation plan. Metrolinx's objective is to develop and implement a transportation system that "supports prosperity, sustainability and quality of life," with the goal to improve the co-ordination and integration of public transit in the GTHA. In 2007, the Government of Ontario committed to spending $11.5 billion to improve and expand transit.

In 2008, MTO posted information notices on the Environmental Registry, on behalf of Metrolinx, inviting public comment on a series of green papers regarding the regional transportation plan. Later that year, MTO posted proposal notices seeking public input on Metrolinx's two white papers and its draft regional transportation plan, The Big Move.

Metrolinx conducted extensive consultations with the public and stakeholders during the development of their plan's vision, goals, objectives and strategies, which is to be commended. However, to guarantee that the agency's future environmentally significant decisions during the implementation of The Big Move will continue to be made in a transparent and accountable manner consistent with the full requirements of the *EBR*, the ECO believes that Metrolinx should be prescribed under the *EBR*. The ECO notes that if these environmentally significant decisions were being made by MTO, they would be subject to the *EBR* because that ministry is prescribed.

The ECO met with Metrolinx in April 2013 to discuss the importance and benefits of becoming a prescribed agency under the *EBR*.

## Still Not Prescribed...

Other ministries, agencies, acts and instruments that the ECO has recommended be prescribed under the *EBR* in the past include:

- Ministry of Finance
- Ministry of Aboriginal Affairs
- Ontario Heritage Trust
- Entire *Building Code Act, 1992*
- Water Management Plans under the *Lakes and Rivers Improvement Act*
- Nutrient Management Instruments under the *Nutrient Management Act, 2002*

The ECO is disappointed that no progress has been made during this reporting year in prescribing any of these ministries, agencies, acts or instruments.

## 1.8 Appeals, Lawsuits and Whistleblowers

The *Environmental Bill of Rights, 1993* (*EBR*) provides Ontarians with several legal tools that enable them to enforce and protect their environmental rights, including:

- appeal rights;
- public nuisance claims;
- claims for "harm to a public resource"; and
- whistleblower protection.

### Instrument Holder Appeals

Many Ontario statutes provide individuals and companies with a right to appeal (i.e., challenge) government decisions that directly affect them, such as a decision to deny, amend or revoke a permit, licence or approval for which they applied or that was issued to them. These are called "instrument holder appeals." If an instrument holder appeal relates to an instrument that is prescribed under O. Reg. 681/94 made under the *EBR*, the public has a right to receive notice of that appeal. The ECO is required to post notice of instrument holder appeals on the Environmental Registry; the ECO also posts notices on the Registry of the final dispositions of these appeals (i.e., whether an appeal was allowed, denied or withdrawn).

During the 2012/2013 reporting year, the ECO posted six new instrument holder notices of appeal on the Registry and three decision notices for appeals initiated in earlier reporting years (see Table 1.8.1).

TABLE 1.8.1.

Instrument Holder Appeals of *EBR*-Prescribed Instruments Initiated or Decided in the ECO's 2012/2013 Reporting Year.

| Instrument Holder | Instrument | Registry # | Date of Appeal | Outcome |
|---|---|---|---|---|
| Township of Amaranth | Official Plan Amendment | 011-1692 | June 13, 2012 | Appeal ongoing as of March 31, 2013 |
| City of Barrie | Environmental Compliance Approval (sewage) | 011-3201 | July 12, 2012 | Appeal ongoing as of March 31, 2013 |
| Harry Rubin & Son | Director's Order | 011-6366 | September 25, 2012 | Appeal ongoing as of March 31, 2013 |
| Nestlé Canada Inc. | Permit to Take Water | 011-6182 | October 11, 2012 | Appeal ongoing as of March 31, 2013 |
| Timco Foods Ltd. | Environmental Compliance Approval (Refusal to issue) | 011-5984 | November 28, 2012 | Appeal ongoing as of March 31, 2013 |
| Trillium Recovery Inc. | Environmental Compliance Approval (waste) | 011-6141 | December 28, 2012 | Appeal ongoing as of March 31, 2013 |
| Mad Term II Inc. and John Crane Canada Inc. | Director's Order | 011-2651 | May 17, 2011 | Appeal dismissed based on Settlement Agreement and withdrawal of the Order |
| Regional Municipality of Waterloo | Official Plan | 010-7235 | January 25, 2011 | The OMB ordered amendments to be made to the official plan |
| Greg and Sharon Hart | Director's Order | 011-0921 | November 9, 2010 | Appeal withdrawn |

## Third Party Appeal Rights

The *EBR* expands the basic appeal rights granted to instrument holders by enabling any member of the public (i.e., a "third party") to apply for "leave" (i.e., permission) to appeal ministry decisions about certain instruments prescribed under the *EBR*. These are called "third party appeals." Ontario residents who wish to seek leave to appeal a decision must apply to the proper appellate body – usually the Environmental Review Tribunal (ERT) or the Ontario Municipal Board (OMB) – within 15 days of the decision being posted on the Environmental Registry.

However, to be granted leave to appeal, applicants must first establish that they have an interest in the decision in question. This is generally a low threshold to meet; for example, the applicant may live near the facility to which the instrument was issued, or may have commented on the original proposal to issue the instrument. They must then satisfy the more onerous two-part test for leave to appeal set out in section 41 of the *EBR* by successfully demonstrating that:

1. there is good reason to believe that no reasonable person, having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have made the decision; and
2. the decision could result in significant harm to the environment.

If a third party is granted leave, they may then file their appeal of the decision, which will be heard and decided by the appellate body. During the 2012/2013 reporting period, concerned members of the public sought leave to appeal six instrument decisions (see Table 1.8.2).

**TABLE 1.8.2.**

Third Party Applications for Leave to Appeal (LTA) Initiated Under the *EBR* in the ECO's 2012/2013 Reporting Year.

| Instrument Holder | Instrument | Registry # | LTA Applicant(s) | Date of LTA Application | Leave Decision |
|---|---|---|---|---|---|
| Goldcorp Canada Ltd | Permit to Take Water | 011-5839 | 1301578 Ontario Inc. and William Hughes | July 11, 2012 | Application dismissed |
| Vidal Street Industrial Park Inc. | Environmental Compliance Approval (air) | 011-6468 | Jason Williams, representing Aamjiwnaang First Nation | October 16, 2012 | Application dismissed – not filed within the 15-day deadline under the *EBR* |
| Lystek International Inc. | Environmental Compliance Approval (air) | 011-4536 | Southgate Public Interest Research Group Inc.; William Monture, Lester Green, Floyd Montour and Ruby Montour, members of Six Nations | October 26, 2012 | Application dismissed |
| Lystek International Inc. | Environmental Compliance Approval (waste) | 011-4541 | Southgate Public Interest Research Group Inc.; William Monture, Lester Green, Floyd Montour and Ruby Montour, members of Six Nations | October 26, 2012 | LTA dismissed |
| Atlantic Packaging Products Ltd. | Environmental Compliance Approval (air) | 011-1639 | Brimley Progress Development Inc. | October 31, 2012 | Not decided as of March 31, 2013 |
| River Valley Developments Inc. | Permit to Take Water | 011-5939 | City of Guelph | February 12, 2013 | Not decided as of March 31, 2013 |

## Direct Right of Appeal by Third Parties

There is a separate set of rules for third party appeals of renewable energy approvals (REAs) issued under the *Environmental Protection Act* (*EPA*) for solar, wind and bioenergy projects. Under the *EPA*, any resident of Ontario has a right to appeal a ministry decision about a REA without first seeking leave from the appellate body. Unlike appeals under the *EBR*, however, a REA appeal is only permitted on the following limited grounds:

That engaging in the renewable energy project in accordance with the REA will either

a. cause serious harm to human health; or
b. cause serious and irreversible harm to plant life, animal life or the natural environment.

Notices of third party appeals of REAs are posted on the Environmental Registry.

Similarly, although there is a third party right to seek leave to appeal certain *Planning Act* decisions under the *EBR*, the *Planning Act* provides a broader, direct right of appeal for third parties. Therefore, third party appeals of prescribed *Planning Act* instrument decisions are usually made under the *Planning Act* rather than the *EBR*. Notice of such appeals is still posted on the Environmental Registry.

During the ECO's 2012/2013 reporting period, concerned members of the public appealed nine REAs under the *EPA* and one official plan amendment under the *Planning Act* (see Table 1.8.3). The ECO also posted decision notices for three appeals of REAs that were initiated in an earlier reporting year.

**TABLE 1.8.3.**

Direct Third Party Appeals of *EBR*-Prescribed Instruments Initiated or Decided in the ECO's 2012/2013 Reporting Year.

| Instrument Holder | Instrument | Registry # | Appellant(s) | Date of Appeal | Outcome |
|---|---|---|---|---|---|
| Woolwich | Renewable Energy Approval (anaerobic digestion) | 011-3923 | Michael Purves-Smith et al. | April 11, 2012 | Appeal withdrawn |
| Grand Renewable Energy | Renewable Energy Approval (solar) | 011-5912 | Negus et al. | June 15, 2012 | Appeal withdrawn |
| Grand Renewable Energy | Renewable Energy Approval (wind) | 011-5914 | Negus et al. | June 15, 2012 | Appeal dismissed |
| Regional Municipality of Peel | Official Plan Amendment | 011-0328 | James Dick Construction Limited | June 18, 2012 | Appeal ongoing as of March 31, 2013 |
| South Kent Wind LP | Renewable Energy Approval (wind) | 011-5719 | Chatham-Kent Wind Action Inc.; Dan O'Neill; et. al. | July 6, 2012 | Appeal dismissed |

| Instrument Holder | Instrument | Registry # | Appellant(s) | Date of Appeal | Outcome |
|---|---|---|---|---|---|
| Capitol Power | Renewable Energy Approval (wind) | 011-3999 | Haldimand Wind Concerns; Peter Slaman | July 31, 2012 | Appeal dismissed |
| wpd Springwood Wind Inc. | Renewable Energy Approval (wind) | 011-6010 | Oppose Belwood Wind Farm Association | November 1, 2012 | Appeal withdrawn |
| McLean's Mountain Wind GP Inc. | Renewable Energy Approval (wind) | 011-5195 | Manitoulin Coalition for Safe Energy Alternatives Inc. | November 14, 2012 | Appeal withdrawn |
| Ostrander Point Wind Energy LP | Renewable Energy Approval (wind) | 011-5239 | Prince Edward County Field Naturalists; Alliance to Protect Prince Edward County | January 4, 2013 | Appeal ongoing as of March 31, 2013 |
| CSI Solar Project 16 Inc. | Renewable Energy Approval (solar) | 011-6840 | Kathy and James Cuthill and Pamela McCracken - and - Corporation of the Town of Greater Napanee | Feb. 8, 2013 | Appeal ongoing as of March 31, 2013 |
| NextEra Energy Canada, ULC. (Summerhaven) | Renewable Energy Approval (wind) | 011-4584 | Haldimand Wind Concerns; William Monture; Haudenosaunee Development Institute (HDI) | March 29, 2012 | Appeal dismissed |
| Gesner Wind Farm LP | Renewable Energy Approval (wind) | 011-4666 | Chatham-Kent Wind Action Inc. | February 9, 2012 | Appeal withdrawn |
| Conestogo Wind LP | Renewable Energy Approval (wind) | 011-2606 | Preserve Mapleton Incorporated; Haudenosaunee Development Institute | January 4, 2012 | Appeal withdrawn |

*Additional information about the appeals and leave to appeal applications described above can be found in the notices posted on the Environmental Registry at www.ebr.gov.on.ca. The full text of the decision for each appeal may also be found on the ERT's website at www.ert.gov.on.ca or on the OMB's website at www.omb.gov.on.ca.*

### 1.8.1 No Timely Notice of *Planning Act* Appeals

Applicants seeking leave under the *Environmental Bill of Rights, 1993* (*EBR*) to appeal a prescribed instrument, as well as anyone appealing an *EBR*-prescribed instrument under another act, are required to give notice to the ECO. When the ECO receives such notification, we endeavour to post a notice of that appeal or application on the Environmental Registry as soon as possible (usually within a few business days).

For applications and appeals under most prescribed acts, the ECO usually also receives confirmation that an appeal is being sought from the Environmental Review Tribunal (ERT), the appellate body responsible for hearing the appeals. However, the Ontario Municipal Board (OMB), the appellate body for *Planning Act* matters, does not inform the ECO when it receives appeals of *EBR*-prescribed instruments.

While it is the appellants' or leave to appeal applicants' statutory obligation to notify the ECO of their appeals or applications, the *EBR* prohibits an appellate body from proceeding with a hearing of an application or appeal until 15 days after notice is posted on the Environmental Registry. Thus, it is in an appellate body's own interest to ensure that the ECO has received notice of an application or appeal so that our office posts a notice on the Environmental Registry and the hearing may proceed.

The ECO has become aware of some third party appeals of official plans and official plan amendments under the *Planning Act* (both prescribed instruments under the *EBR*) for which we have not received notice from either the appellants or the OMB. As a result, the public is deprived of information about the appeals to which it is entitled under the *EBR*, and hearings of those appeals are proceeding without public notice, in contravention of the *EBR*.

While this problem is primarily one that should be remedied through legislative reform, until such time as this gap in the *EBR* is closed, the ECO urges the Ministry of Municipal Affairs and Housing (responsible for administering the *Planning Act*) to work with the OMB to ensure that the ECO receives notice of any appeals of *Planning Act* instruments that are prescribed under the *EBR*. In July 2013, the ECO wrote to OMB staff about this problem. OMB staff responded promptly and assured the ECO that it was working to resolve the issue. The ECO is encouraged by the OMB's responsiveness and hopes that we will be able to post more timely notice of appeals of *EBR*-prescribed *Planning Act* instruments going forward. We will continue to monitor the situation in the next reporting year.

## Public Nuisance Cases

Before 1994 when the *EBR* came into force, claims for public nuisances in Ontario generally had to be brought by, or with leave of, the Attorney General. Since 1994, under section 103 of the *EBR*, someone who has suffered direct economic loss or personal injury as a result of a public nuisance that has harmed the environment can bring forward a claim without the approval of the Attorney General. No new lawsuits claiming public nuisance as a cause of action were brought to the ECO's attention during this reporting year.

### The Right to Sue for Harm to a Public Resource

The *EBR* gives Ontarians the right to sue any person who is breaking, or is about to break, an environmental law, regulation or instrument that has caused, or will cause, harm to a public resource. No such proceedings were brought to the ECO's attention during this reporting year.

### Whistleblower Rights

The *EBR* provides rights to employees who experience reprisals (e.g., dismissal, discipline, etc.) by their employers for reporting environmental violations in the workplace or otherwise exercising their rights under the *EBR*. The ECO is not aware of any employer reprisal ("whistleblower") cases in this reporting year.

## 1.9 The ECO Recognition Award

Each year, the ECO invites prescribed ministries to submit programs and projects for special recognition. The ECO's Recognition Award acknowledges ministry staff that best meet the goals of the *Environmental Bill of Rights, 1993* (*EBR*). This year, six ministries responded to our call for nominations, submitting a total of 13 projects for consideration. An arm's-length panel reviewed the submissions.

### Ministry of Natural Resources: Wasaga Beach Provincial Park Piping Plover Program

This year's ECO Recognition Award is being presented to staff of the Ministry of Natural Resources (MNR) for their Wasaga Beach Provincial Park Piping Plover Program. The 2005 arrival of the piping plover to Wasaga Beach was significant as this endangered species had not successfully nested on the Canadian Great Lakes for over 30 years, and had not had breeding success at the park in over 70 years. The 2012 season marked the most successful season to date with a record of six fledged piping plovers. The ECO commends MNR staff for taking a proactive approach to the conservation of this endangered species at Wasaga Beach Provincial Park, which included extensive and highly successful public outreach and involvement, as well as habitat protection and ongoing monitoring.

### Ministry of Transportation

Additionally, the ECO wishes to acknowledge the efforts made by numerous staff at the Ministry of Transportation (MTO) for their initiatives to green the ministry's operations and projects. MTO staff consistently submit many projects spread across the ministry's broad mandate for consideration for the ECO's Recognition Award. These projects typically are innovative, can be replicated, can be monitored and measured, and – most significantly – make a difference in helping conserve the environment. The ECO congratulates MTO staff for their ongoing passion and dedication to their work and the environment.

**Recipients of the ECO's Recognition Award**

| | |
|---|---|
| 2013 | Wasaga Beach Provincial Park Piping Plover Program (MNR) |
| 2012 | Algonquin Provincial Park's Waste Management System (MNR) |
| 2011 | Bioretention Cells and Rubber Modified Asphalt at the QEW Ontario Street Carpool Lot, Beamsville (MTO) |
| 2010 | Green Power for the Summer Beaver Airport (MTO) |
| 2009 | Project Green (MOE) |
| 2008 | Zero Waste Events at the Metro Toronto Convention Centre (MTC) |
| 2007 | no submissions found to be acceptable |
| 2006 | Southern Ontario Land Resource Information System (MNR) |
| 2005 | Conservation of Alfred Bog (MNR, MOE, MMAH) |
| 2004 | Environmental Monitoring (MOE) |
| 2003 | Ontario's Living Legacy (MNR) |
| 2002 | Oak Ridges Moraine Strategy (MMAH) |
| 2001 | Eastern Massasauga Rattlesnake Project for Highway 69 Reconstruction (MTO) |
| 2000 | Septic System Program (MMAH) |

## 1.10 Education and Outreach

The Environmental Commissioner of Ontario reaches out to the Ontario public in a number of ways. Our website—www.eco.on.ca—is the main source of information about the *Environmental Bill of Rights, 1993* (*EBR*) and the activities of the ECO. We also provide a searchable wiki database allowing visitors to access the thousands of articles published by our office at www.ecoissues.ca. The public can also follow the ECO through Twitter, Facebook, our blog, and YouTube channel.

This year our office also created a new website to highlight the ECO's reporting on biodiversity issues in Ontario. You can access it at www.biodiversityontario.com.

Every year the ECO's Public Information and Outreach Officer handles a wide range of public enquiries on a variety of environmental concerns, and answers questions from members of the public who are interested in exercising their rights under the *EBR*. During the ECO's 2012/2013 reporting year, close to 1,500 enquiries were handled. As the mandate of the ECO now includes reporting on the province's progress in reducing greenhouse gas emissions, as well as energy conservation activities within Ontario, the number of individuals with enquiries continues to rise.

The ECO also manages an active outreach program. For example, the ECO staffs an exhibit with a technologically-advanced interactive information centre at many conferences, symposia and other events. The ECO also regularly shares information about the *EBR* with new audiences, and gives targeted presentations at various conferences and workshops throughout the year. Our Public Information and Outreach Officer is available during regular business hours, on a limited basis, to make presentations on environmental rights under the *EBR* to groups or classes who wish to learn more. For more information, contact us at commissioner@eco.on.ca.

## 1.11 The Environmental Commissioner of Ontario's Annual Site Visit

Throughout the year, the Environmental Commissioner makes many presentations, speeches and appearances across the province. In addition, Commissioner Miller tours a different part of Ontario for a few days each summer to learn about the environmental issues, challenges and successes unique to that particular region. These site visits give him the opportunity to meet with government staff, industry representatives, environmental organizations and the public. He also gets to see – firsthand and on the ground – the results of local research, conservation and environmental initiatives. These trips provide the office of the ECO with a broader and more informed perspective when reporting on issues in our annual reports. Past site visits have included tours of: the electric power generating facility in Thunder Bay; conservation lands on Pelee Island; a Niagara Falls landfill that converts landfill gas to energy; and Algonquin Provincial Park, where the Commissioner learned about the park's extensive interpretative program, fish and wildlife research, timber harvesting, and integrated waste management system.

On this year's site visit, Commissioner Miller visited the Severn Sound area of southeastern Georgian Bay. Highlights of the Environmental Commissioner's June 2013 trip included:

- Touring Severn Sound with the Severn Sound Environmental Association (SSEA) and local mayors and city councillors, hearing about the success of the Severn Sound Remedial Action Plan in delisting the sound as an Area of Concern;
- Visiting local rehabilitation and stream sampling sites, learning from SSEA staff and students about the association's programs for monitoring water levels, water quality, water temperature, and wildlife;
- Touring Beausoleil Island in Georgian Bay Islands National Park, learning about the park's wildlife, cultural heritage, and recreational opportunities; and
- Visiting the Wye Marsh Wildlife Centre, learning about its interpretive and educational programs, trumpeter swan reintroduction program, and conservation initiatives.

Commissioner Miller sincerely thanks everyone he met during the visit for taking the time to share their experiences and knowledge of environmental initiatives in the Severn Sound area.

# 2

# THE ROLE OF GOVERNMENT AS ENVIRONMENTAL STEWARD

The people of Ontario rely on, and expect, the government to be the steward of the environment: to protect the air we breathe, the water we drink, the soils in which we grow food, and the natural resources that support our communities. Government alone has the ability to undertake this role – to establish and enforce fair rules, to work with industry, collaborate with organizations, and engage communities. No individual, business or institution, no matter how well intentioned, can assume this critical role to manage and protect the environment. And if government fails to take this leadership role to safeguard the environment, everyone loses; the environment may be degraded, businesses may lack certainty, and Ontario's social and economic well-being may be threatened.

The Ontario Legislature directs the various provincial ministries to each carry out specific mandates, representing the interests of the public at large. Each ministry must have a vision to tackle its mandate, identify key issues, develop sensible plans of action, and then take decisive steps to solve any identified problems. When this system works properly, it represents good government.

Good government has many characteristics. It is accountable, transparent, responsive, efficient, inclusive, participatory, effective, and follows the rule of law. These elements of good government rely on both the hard work of public servants and the institutional direction of corporate branches of provincial ministries to achieve success.

There has been a trend for ministries' corporate direction to move away from some of these elements of good government. In this part of our Annual Report, the ECO focuses on the Ministry of Natural Resources' (MNR's) recent "transformation," which signals a new philosophy for managing Ontario's environment and raises the spectre of a very different future for resource management in the province.

This part also investigates the capacity of MNR and the Ministry of the Environment to meet their responsibilities for protecting Ontario's environment and natural heritage. As the ECO has reported before, their operating budgets have not kept pace with the scope, volume and complexity of their mandates.

## 2.1 The Abdication of Natural Resources Management by MNR

Eliminating services at select provincial parks. Gutting a long-standing youth summer learning program. De-regulating certain types of resource use activities. Reducing support for local stewardship initiatives. Downsizing the role of science in natural resource management. Eliminating some protections for at-risk species. All of these have one thing in common: they are all happening in Ontario as part of the Ministry of Natural Resources' (MNR's) three-year "transformation plan."

First announced in the 2012 provincial budget, the MNR transformation plan is the ministry's strategy to "make it easier, faster and more efficient for businesses and individuals to access services, set the ministry on a sustainable fiscal path, and contribute to balancing Ontario's budget by 2017/18."

The ministry maintains that its transformation measures, which have been rolled out periodically since spring 2012, can be undertaken while it continues to protect and sustainably manage natural resources. However, the ECO is extremely concerned about the implications of some aspects of the plan that cast doubt on both the ministry's willingness and its ability to responsibly manage and protect the province's natural resource treasures.

### The Transformation Package

MNR initially indicated that it was looking to reduce approximately 10 per cent of its annual budget, or about $70 million, over the next three years. Those cost savings would come from reducing staffing and operating costs, as well as from cutting funding for ministry partners. The transformation plan consists of four main components:

1. **The Streamlining of Approvals Processes** – Modernize approvals, including changes to regulations and legislation.
2. **Operations Delivery Transformation** – Redesign some programs and improve the efficiency of operations throughout the province.
3. **Stewardship and Partnership Funding Alignment** – Take a more strategic approach to partnerships, with transfer payment funding aligned to core ministry business and priorities.
4. **Science and Information Rationalization** – Shift the focus from individual species to broader ecosystems and realign key science functions.

In response to the ECO's request for a copy of the transformation plan itself, MNR stated, "we do not have a publicly shareable transformation document that we are able to provide in response to your request."

## The First Step: Sweeping Amendments to MNR Legislation

The first evidence of MNR's transformation came in spring 2012 in the form of sweeping – and troubling – amendments to seven MNR-administered acts in the provincial budget bill, the *Strong Action for Ontario Act (Budget Measures), 2012* (Bill 55). Among other things, the Bill 55 amendments effectively enable:

- the outsourcing of many ministry decision-making powers to third parties at the discretion of the Minister of Natural Resources;
- the weakening of requirements and prohibitions related to fish and wildlife management, including unlimited discretion to make regulations exempting persons from the need to obtain a hunting licence;
- decreased government oversight of activities on Crown lands; and
- loosened rules around management direction for provincial parks, extending deadlines so long as to render management direction irrelevant and unable to meet the intent of the legislation.

In addition, Bill 55 originally contained proposed amendments to the *Endangered Species Act, 2007* (*ESA*) and to the *Crown Forest Sustainability Act, 1994* (*CFSA*), including:

- creating exemptions that would permit the harming of species at risk and their habitats;
- doubling legislated timelines for developing recovery strategies for endangered and threatened species and for the government to respond to completed strategies;
- delaying the provision of regulated habitat protection for many species;
- eliminating the requirement for forest management plans in an unlimited set of circumstances;
- allowing for an unlimited extension of the terms of forest resource licences; and
- allowing for unlimited exemptions of forest operations from certain requirements of the *ESA*.

The proposed amendments to the *ESA* and *CFSA* were harshly criticized by stakeholders and were deleted following the bill's referral to a standing committee. While those proposed changes were not passed into law under Bill 55, the government signaled its intent to revisit them at a later date. Indeed, regulatory amendments under the *ESA* made in May 2013 accomplished, in part, what the government attempted to do under Bill 55.

Bill 55 was not subject to the usual public notice and consultation requirements of the *Environmental Bill of Rights, 1993* (*EBR*) because proposals that form part of, or give effect to, a budget are exempt (see Part 2.2 of this Annual Report).

### *Program Changes*

In spring 2012, a transformation initiative made changes to MNR's Bear Wise program, the ministry's public awareness, reporting and response program for reducing human-bear conflicts. Without consulting the public, MNR reduced the number of staff working on the program and announced that it would no longer provide assistance in cases of site-specific conflicts with bears, nor would it trap and relocate problem bears. By default, the Ontario Provincial Police and local police departments often have become responsible for confronting bears that wander into urban/suburban areas; where problem bears may have been relocated in the past, they are often shot today.

## It Could Happen: The Nightmare Scenario

MNR's transformation initiatives are extremely troubling: not just for what has been done to date, but because the broad legislative changes implemented through Bill 55 could have profound consequences for the future. The amendments are so broadly permissive that they allow the ministry to implement an almost infinite range of additional and unanticipated changes. The ministry intends to leave the details of (and limitations on) many of these changes to forthcoming regulations; while giving itself wide latitude for future action, MNR is also creating great uncertainty about the breadth and actual intent of the possible effects. The implementation of these amendments may start out relatively benign, but could readily escalate to more far-reaching changes that would effectively create a whole new regime for natural resource management in Ontario – one that no longer even purports to prioritize the protection and conservation of natural resources.

As a result of the Bill 55 amendments, this or any future government could wholly redefine Crown land use and natural resource management. For example, the new delegation of power provisions potentially could be used to outsource Crown land and natural resource management, in its entirety, to private third party entities that do not have the long-term conservation and protection of Ontario's natural resources as their foremost priority; this has occurred in other jurisdictions such as with the Alberta Energy Regulator. This should be a particular concern to residents of northern Ontario, where large tracts of land, unencumbered by a formal planning regime, could conceivably be handed over to the exclusive control of large multinational corporations – resulting in an unprecedented transformation of the way of life in that region.

The failed attempt, through Bill 55, to amend the *CFSA* illustrates the government's intent to create unlimited opportunities to distance itself from regulating forest management activities. MNR's regulatory amendments for species at risk, adopted in May 2013, are equally illustrative of the government's desire to dilute aspects of that environmental law to the point that it becomes ineffectual and unable to meet its intended purpose.

Cumulatively, MNR's transformation plan, with its various permissive and open-ended legislative and regulatory changes, together with the elimination of certain programs, could result in the nightmare scenario of a province in which Crown land and natural resources are largely de-regulated and no longer subject to the many existing protections that ensure the wise use of natural resources, the promotion of healthy and sustainable ecosystems, and the conservation of biodiversity. If the public interest and the environment are not the priority, it begs the question, then, why and for whom is this transformation occurring?

In early summer 2012, MNR announced that it would be reducing funding for its Forest Access Roads Program – a business subsidy for the forest industry – from $75 million to $60 million in 2012. These savings would have made a significant contribution to the ministry's transformation budget target. However, MNR informed the ECO that it has already committed to restoring this funding to its previous level in the future.

In late September 2012, MNR announced a number of additional transformation initiatives "to modernize its business and operate on a more cost efficient basis." Among other things, these decisions – also made without notice on the Environmental Registry or other public consultation – include the following:

- The management direction for 10 provincial parks with low visitation rates was changed to "non-operating" status, thus eliminating all services and facilities at those parks. (The ministry later reversed its decision for three of those parks; for more information, see Part 4.6.2 of this Annual Report.) In October 2012, MNR informed the ECO that three additional parks were slated to have their status changed in 2013; however, MNR advised the ECO in May 2013 that it had reversed this decision and that no more parks would be affected. MNR also eliminated its central administrative office in Arrowhead Provincial Park, reducing the Ontario Parks planning zones from six to five.
- The overnight component of the Ontario Ranger Program was terminated. Since 1944, this program has provided students with summer employment working on stewardship activities in provincial parks. All 13 ranger camps would be closed and the program replaced with a local, day-based youth stewardship program.
- Provincial funding for Ontario's 45 community-based Stewardship Councils was terminated and the positions of the 45 stewardship co-ordinators tasked with supporting the councils eliminated. They would be replaced with 25 district "partnership specialists" to support a wider range of community groups (for more information about changes to Ontario's stewardship model, see Part 3.3.1 of this Annual Report).

***A Landscape Approach to Natural Resource Management***

In November 2012, MNR posted a proposal on the Environmental Registry (#011-7540) for another key component of its transformation plan: a new policy framework that would shift the ministry's approach to managing many natural resource-related activities and programs to a broader landscape scale. The ministry states that "ecological considerations and fiscal realities require us to reassess the best scales for the ministry's natural resource management activities." MNR describes its new approach as "implementing management actions in an integrated way, over larger areas of land and water, and over longer time periods than may currently happen in management systems or policy."

MNR supports this proposed policy shift with examples of other jurisdictions that have adopted broader landscape approaches to natural resource management, as well as other Ontario strategic policies that embrace landscape-level planning. The ministry cautions that adopting a landscape approach does not negate the need for finer-scale management efforts in some situations (e.g., for specific sites, species, resources or activities), and that "effective landscape-scale management provides the guidance to allow finer-scale management to be nested within a broader strategic vision." For example, MNR notes that rare, endangered or invasive species may require more detailed and specific management efforts within a broader management strategy.

MNR asserts that a landscape approach "promotes better understanding of how natural systems work and how they are affected by human activities." The proposed framework is based on two goals: 1) to adopt a modern and sustainable approach to managing Ontario's natural resources by managing over broader areas and longer time periods; and 2) to support, enable and advance ecosystem-based landscape management approaches in Ontario over time. The framework also has five elements: manage at appropriate scales; integrate and co-ordinate; assess, manage and mitigate risk; focus science and information resources; and manage adaptively. Under these elements, the framework lists 13 considerations to be used in applying the proposed approach to natural resource management.

MNR explains that its next step will involve examining its programs for "opportunities to consider broader landscape approaches throughout its areas of business." As the ministry posted a decision notice for this proposal at the end of June 2013, outside of the ECO's reporting year, the ECO will review this decision in a future annual report.

### *Approvals Modernization*

In February 2013, following public consultation on the Environmental Registry (#011-6751), MNR announced that it will modernize its approvals process by streamlining many permits, licences and other authorizations issued under MNR's legislation.

In brief, the ministry is redesigning its approvals process by applying one of four approaches to each type of approval, based on the impact of the activity:

1. Eliminate some types of approval altogether from regulatory control;
2. Eliminate some types of approval, but establish rules in regulations to govern those activities (i.e., "permit-by-rule");
3. Require approval for some activities through an electronic registry system; or
4. Leave some approvals unchanged, but look for opportunities to use technology to improve delivery of those approvals.

To determine the most appropriate approvals process for any given natural resource-related activity, MNR explained that it will employ a "standard risk evaluation process that first considers the original purpose for having the current approval in place, as well as the best available information to identify any risks associated with the activity." The risk evaluation process will involve an assessment of impacts on: public health and safety; natural resources; social and cultural uses of natural resources; government, public and private finances and the economy; and public expectations of government.

In December 2012 – before finalizing the modernization strategy – MNR had already posted three proposal notices on the Environmental Registry for regulatory changes that would, in part, implement the strategy. In May 2013, amendments were adopted for regulations under the *Fish and Wildlife Conservation Act, 1997* (Environmental Registry #011-7663), and the *Endangered Species Act, 2007* (*ESA*) (#011-7696); amendments were still pending under the *Public Lands Act* (#011-7669). These changes and proposed changes undermine the oversight of certain aspects of wildlife management, the active management of Crown land and the protection and recovery of species at risk:

- Municipalities no longer require provincial approval to hire or employ hunters or trappers to harvest fur-bearing mammals.
- Proponents would no longer require work permits to undertake certain activities on Crown land, but would instead be subject to either permit-by-rule regulations or registration requirements.
- A number of industry sectors and facilities (e.g., commercial forestry, waterpower facilities, aggregate pits and quarries, wind turbines, drainage works, roads and highways, rail lines, communication towers, hydro corridors, mineral exploration, land development, etc.) have been granted exemptions from the requirement to obtain a permit prior to harming at-risk species or damaging or destroying their habitat. Proponents in most cases are required only to minimize adverse effects (subject largely to their own discretion), instead of ensuring an overall benefit to the species and obtaining MNR's approval.

*For more detailed information about MNR's plan for modernizing its approvals processes, see Section 1.16 of the Supplement to this Annual Report.*

### Ministry Reorganization

MNR is planning to eliminate one of its six divisions, the Science and Information Resources Division (which includes three branches), and to re-organize the remaining five divisions. The ministry states that it is: realigning the functions of the eliminated division into other divisions (e.g., by creating a new Science and Research Branch within the Provincial Services Division); shifting some functions, such as forest management planning and wildlife management, from the district/local level to the regional office level; and restructuring the Policy Division by reducing six branches into four.

Initially, MNR informed the ECO that staffing levels for science and information resources would be reduced; however, in May 2013, MNR informed the ECO that no scientists would be laid off. MNR asserts that, despite the re-organization, "science will remain an integral part of the ministry, with the ministry continuing to make decisions based on the best available science." The ministry also eliminated 27 permanent and 95 seasonal staff positions in fall 2012, many of these as a result of the elimination of services in provincial parks, the downsized Ontario Ranger Program and the cuts to the Ontario Stewardship Program.

### Budget Update in May 2013

In May 2013, coinciding with the release of the 2013 Ontario Budget, MNR's deputy minister updated MNR staff on the transformation plan's progress. Most notably, the 2013 budget saw approximately $40 million permanently "returned" to MNR's base budget. Nonetheless, MNR explained to the ECO that "the ministry still has a structural deficit to address – albeit a less substantial one – and the government still needs to address the provincial debt." The deputy minister stated that MNR will continue to move forward with an updated transformation plan.

## Implications of Transformation

### *Cutting Costs Could be Costly*

The ultimate goal of MNR's transformation plan is to cut operational costs. By this measure, the plan will likely be a success. Some of the proposed cuts and changes to ministry programs, such as terminating mail-out reminders for Outdoors Card renewals, will likely save money without putting natural resources at risk.

Other cost-saving transformation initiatives, however, may impose far-reaching effects on the province's natural resources. Enabling the Minister to delegate his powers – with no liability – to literally anyone, potentially allowing municipalities to take over wildlife management, creating exemptions from statutory requirements designed to protect wildlife and natural resources, and eliminating protections for some of the province's most vulnerable species, could all lead to significant negative consequences for the province's wildlife and natural environment.

Likewise, cuts to stewardship programs and services at provincial parks save money, but could be costly in other, less tangible ways. For example, cuts will limit the public's ability to initiate or contribute to local stewardship activities that provide important benefits to the natural environment. Cuts also can make it more difficult for Ontarians to connect with – and develop a greater respect for – the natural world.

By eliminating programs and cutting costs, MNR will demonstrate that it is willing to operate on a reduced budget, potentially setting itself up to receive an even smaller share of provincial dollars in future years. The long-term costs – both environmental and fiscal – of providing insufficient funding to allow MNR to effectively manage the province's natural resources could ultimately be far disproportionate to the savings.

### *MNR's Risk-Based Approach Could Be Risky*

A recurring theme in MNR's transformation initiatives is the use of a risk-based approach to decision making. In particular, this approach is cited as a key tool in the modernization of MNR approvals, in the shift to a landscape approach to natural resource management, and in its operational delivery transformation.

While employing a risk-based approach is reasonable, the ECO is concerned that MNR has not explained how it will assess and weigh the various risks associated with any of these transformation initiatives. The outcome of a risk-based approach depends on the weight accorded each of the different factors considered. Without more details, it is uncertain whether MNR will consistently prioritize avoiding risks to natural resources over MNR's desire for a more "sustainable fiscal path" or other considerations. In the context of approvals modernization, the fact that MNR has stated that it will assess, among other things, the risk to government, public and private finances and the economy, as well as public expectations of government, and that it will consider additional factors, such as "the need to balance public and private interests in the use of a public resource," reinforces this concern.

### *Less Science and Research without a Science and Research Division*

MNR insists that science will remain an integral part of the ministry; however, the elimination of a dedicated Science and Information Resources Division likely means that science will play a diminished role in the transformed ministry.

The ECO has commented in the past on MNR's failure to deliver on core science and research functions, such as the lack of a wildlife population monitoring program despite a legal requirement to have one. MNR's assurance that no scientists will be laid off during the restructuring of the ministry is a promising sign that the ministry is retreating, at least somewhat, from its plan to downsize the role of science at MNR. Nevertheless, despite the ministry's avowal that it will continue "to make decisions based on the best available science," the elimination of a division dedicated to science and research could still result in less available scientific expertise upon which to base its decisions. The lack of reputable and accessible scientific information could seriously undermine public confidence in the management of Ontario's natural resources and environment.

### *Lack of Public Consultation Leaves Transformation Plan Opaque*

MNR has been less than transparent with its transformation plan. Several of the major decisions under the plan have been made without the public notice or consultation required by the *EBR*. For example, the ministry should have consulted the public on changing the operating status of provincial parks by posting proposed updated park management direction on the Environmental Registry (for more information, see Part 1.2 of this Annual Report). While the Bill 55 amendments were technically exempt from *EBR* consultation requirements, using the budget bill to shield significant changes to key environmental legislation from public scrutiny – and then refusing to review those decisions when members of the public formally requested that it do so through *EBR* applications for review – is inconsistent with the spirit and intent of the *EBR*.

Although other transformation initiatives have been posted on the Environmental Registry, such as regulatory amendments associated with MNR's approvals modernization strategy, the ministry's approach to posting and consulting on these initiatives has been problematic. In particular, consultation was undertaken at an overly broad level without providing specific details of the proposals or the proposed text of draft regulations. For example, when asked by the ECO, MNR refused to share with the public the draft text of proposed regulatory changes under the *ESA* during its public consultation, thereby rendering informed public comment all but impossible.

MNR's repeated decisions not to consult the public, fully or at all, deprive Ontarians of the opportunity to participate in the wholesale reconstruction of the way in which natural resources are to be managed in Ontario in the future.

## ECO COMMENT

The ECO has long argued that MNR is underfunded. MNR has been consistently unable, due to its limited budget, to do all that the ministry should be doing. However, the ECO is concerned that MNR is not merely looking for innovative ways to carry out its mandate on a smaller budget; the transformation initiatives to date signal a new philosophy in the ministry that gives insufficient weight to the intrinsic value of Ontario's natural environment and raises the spectre of a very different future for natural resource management in Ontario – particularly in northern Ontario.

The ECO is extremely troubled by the changes to environmental laws made by Bill 55. These broad amendments – coupled with the fact that they were made without consulting the public – lead the ECO to have serious concerns about the ministry's motives. MNR should have incorporated into the statutes any intended limitations on the newly created powers and provisions. By leaving the details up to future regulation, anything is possible. That MNR took this approach suggests either extreme carelessness in drafting, or that the ministry's real intent in making these amendments is something unpalatable to the public and better left hidden until it is too late.

Some of the policy changes under the transformation plan may sound good in theory, such as a shift to a broader landscape and risk-based approach to natural resource management. In practice, however, MNR's approach to transformation is problematic. A modernization of the ministry driven by the values and knowledge of 21st century conservation science and management would be advantageous; modernization driven primarily by "fiscal realities" is a potentially fatal step backwards for conservation in Ontario. MNR's transformation documents are rife with references to providing easier and more effective service delivery for businesses and balancing the provincial budget, but they pay only lip service to the need to protect Ontario's natural resources. The ECO fears that the ministry has become more interested in a "sustainable fiscal path" than in sustainable resource management. Hopefully, the permanent return of $40 million to the ministry's base budget will allow the ministry to reconsider not only specific cost-saving measures, but its underlying priorities as well.

The ECO is not confident that the government has given sufficient consideration to the implications of these wide-ranging changes to MNR. The ministry has revealed little information about the criteria upon which it is basing its decisions to make these changes, nor has it provided any analysis of their short- or long-term impacts on the environment. The ministry is moving forward with its transformation plan in great haste, tripping over itself to get things done. MNR's apparent disinterest in procuring the public's input makes these sweeping changes all the more troubling.

At a time when Ontario's natural resources are under increasing pressure, MNR is sending a message with its transformation plan that we should lower our expectations about what the ministry will do in the future to manage and protect the province's natural resources. These legislative and regulatory changes, together with cuts to programs and operations, will indeed transform MNR – but not in a good way.

*For ministry comments, please see Appendix C.*

# 2.2 Shielded From Public Scrutiny: Bill 55's Sweeping Changes to Environmental Laws

## No *EBR* Consultation on Bill 55

Bill 55, the *Strong Action for Ontario Act (Budget Measures), 2012*, was introduced in the Ontario Legislature on March 27, 2012, and received Royal Assent on June 20, 2012. The 290-page bill made amendments to 58 different statutes, including the following acts prescribed under the *Environmental Bill of Rights, 1993* (*EBR*):

- the *Fish and Wildlife Conservation Act, 1997* (*FWCA*)
- the *Kawartha Highlands Signature Site Park Act, 2003* (*KHSSPA*)
- the *Lakes and Rivers Improvement Act* (*LRIA*)
- the *Niagara Escarpment Protection and Development Act* (*NEPDA*)
- the *Provincial Parks and Conservation Reserves Act, 2006* (*PPCRA*)
- the *Public Lands Act* (*PLA*).

Under the *EBR*, prescribed ministries must notify the public of proposals to enact or amend environmentally significant legislation by posting a notice on the Environmental Registry for a minimum of 30 days, during which time the public is entitled to submit comments. Once the ministry has made a decision, it must post a further notice explaining the decision and describing the effect, if any, of public participation on the decision.

However, section 33 of the *EBR* exempts proposals that form part of, or give effect to, a budget from the usual public notice and consultation requirements of the *EBR*. The government chose to include in Bill 55 a number of highly controversial proposed changes to some of the environmental legislation listed above rather than in individual bills before the Legislature. By doing so, it avoided notifying and consulting the public under the *EBR* – as well as the accountability and transparency that results from posting notices on the Environmental Registry – before passing the changes into law. The environmental significance of these changes is described in Part 2.1 of this Annual Report.

In late 2012, Ontario residents submitted four separate *EBR* applications for review to the ECO seeking the government's reconsideration of changes to four statutes made by Bill 55 (the *FWCA*, *PPCRA*, *PLA* and *LRIA*). These applications demonstrate the public's discontent not only with the troubling changes to the laws themselves, but with a process that allowed the government to bypass public consultation when making those changes. In all four cases, the Ministry of Natural Resources (MNR) denied these requests for review – effectively depriving the Ontario public, for a second time, of the right to participate in these important decisions that affect the environment. For more information about these applications, see Sections 2.4.2, 2.4.3, 2.4.4 and 2.4.5 of the Supplement to this Annual Report.

## No Consideration of MNR's SEV

Compounding the problem, MNR has failed to demonstrate that it considered its Statement of Environmental Values (SEV) when it decided to amend the *FWCA*, *PPCRA*, *PLA* and *LRIA*, which it was obliged to do under the *EBR* regardless of the fact the changes were made under a budget bill. In response to a request by the ECO for documentation of MNR's SEV consideration for these amendments, MNR surprisingly stated that "MNR's SEV consideration was not formally documented as these amendments were not determined to be environmentally significant."

MNR's position is surprising – and confusing – for several reasons. First, it implies that MNR did, in fact, consider its SEV (but did not document it) – a step that would only have been necessary if MNR believed the amendments to be environmentally significant. Second, MNR has clearly stated that it relied on the *EBR* section 33 exception to explain its failure to consult the public on the Bill 55 amendments, which again, would only have been necessary if MNR considered these amendments to be environmentally significant. Not only is MNR's conclusion that these amendments are not environmentally significant internally inconsistent, but it is also shocking given the obvious environmental significance of these sweeping and alarming amendments.

For more information about the importance of SEV consideration, refer to Part 1.6 of this Annual Report.

## Reliance on *EBR* Section 33 was Inappropriate

One of the core purposes of the *EBR* is to ensure the public has a right to participate in the making of government decisions that significantly affect the environment. By using Bill 55 to pass profound and sweeping changes to laws that affect the ongoing management and protection of Ontario's wildlife and natural resources, the public has been denied this right just when it matters most. This lack of transparency and accountability in environmental decision making is only intensified by both MNR's failure to demonstrate that it considered its SEV in making the decisions to amend its legislation, and its subsequent (and implausible) assertion that the amendments are not environmentally significant – an assertion with which the ECO wholeheartedly disagrees.

Reliance on the section 33 budget exemption in the *EBR* to justify the lack of public consultation on Bill 55 – as well as MNR's denial of the four applications for review – may comply with the letter of the law. However, the ECO does not agree that the Bill 55 amendments were made in a manner consistent with the purpose and intent of the *EBR*. The section 33 exemption is intended to protect the parliamentary convention of budget secrecy; it surely is not intended to allow the government to shield a vast array of substantial, primarily non-fiscal, changes to environmental legislation from public review and participation.

Theoretically, section 33 could be used to circumvent the *EBR* process entirely; there is nothing stopping the government from including all new or amended environmentally significant legislation for a given year in the annual budget bill. While such a move would be as technically valid as the Bill 55 amendments, eliminating all public participation in decision making about environmentally significant acts is certainly not consistent with the purpose or intent of the *EBR*. It is certainly not what the public wants or expects.

Ultimately, legislative reform is needed to remedy this problem so that prescribed ministries are no longer permitted to hide behind the section 33 exception to avoid public consultation on difficult ministry proposals. The ECO hopes that the Ministry of the Environment will consider this problem as part of its ongoing review of the *EBR* (for more information about that review, see Section 2.2.6 of the Supplement to this Annual Report). In the meantime, the

ECO urges prescribed ministries to be extremely judicious in their use of budget bills in making significant changes to environmental legislation. Budget bills should not be used to shield environmentally significant amendments from full public scrutiny.

*For ministry comments, please see Appendix C.*

## 2.3 A Smaller and Smaller Piece of the Pie: The Budgets of MNR and MOE

For the past five years, the ECO has raised concerns that the capacities of the two provincial ministries chiefly responsible for protecting Ontario's environment and natural heritage – the Ministry of the Environment (MOE) and the Ministry of Natural Resources (MNR) – have not kept pace with their responsibilities. First in a 2007 Special Report (Doing Less with Less: How Shortfalls in Budget, Staffing and In-House Expertise are Hampering the Effectiveness of MOE and MNR) and then in two updates (see Part 2.7 of the ECO's 2007/2008 Annual Report and Part 5.1 of the ECO's 2010/2011 Annual Report), the ECO has consistently argued that the shrinking budgets of these two ministries are shackling their ability to fulfil their mandates.

The portion of Ontario's operating budget allocated to MOE and MNR continues to decline. According to recent estimates, the combined budgets of these two ministries currently represent approximately 0.8 per cent of the province's total operating budget. This is their smallest combined piece of the provincial pie in over 20 years (see Figure 2.3.1)

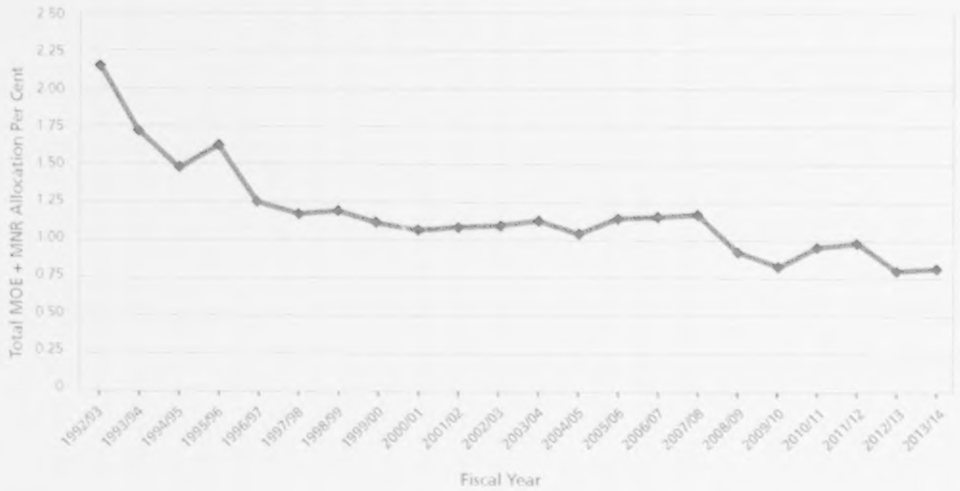


**Figure 2.3.1.**
Total MOE and MNR per cent allocation of Ontario's operating budget. Sources: Expenditure Estimates of the Province of Ontario (Ministry of Finance, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).

While the operating budget of the Ministry of Health and Long-Term Care continually dominates government spending at about 40 per cent of the Ontario budget (see Figure 2.3.2), the operating budget of MOE – the ministry responsible for safeguarding Ontario's air, land and water, and ensuring healthy communities – gets a measly 0.27 per cent. In other words, for every $100 spent by the government on health care, just $0.68 is spent on environmental programs, including those designed to minimize pollution and ensure air and water quality. A government looking for ways to lessen its financial burden may want to seriously consider how much its enormous spending on healthcare might be reduced by an increased financial commitment to a clean and healthy environment.

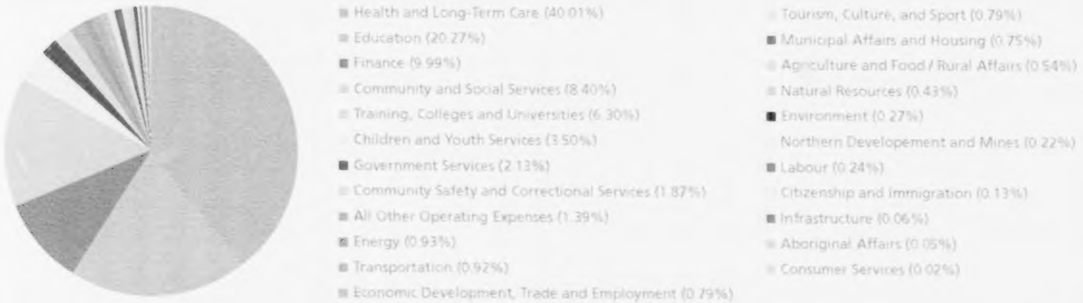


**Figure 2.3.2.**
Planned per cent allocation of the 2013/2014 Ontario operating budget to various ministries. (Source: Expenditure Estimates of the Province of Ontario, Ministry of Finance, 2013).

The adequacy of MOE's and MNR's portion of Ontario's budget is also found wanting when compared with the relative spending of other jurisdictions. In early 2013, the ECO commissioned an independent report that compared Ontario's budgetary spending to that of the governments of five Canadian provinces and five U.S. states of varying sizes and from a range of geographic and socio-economic settings. Compared to these other jurisdictions, Ontario consistently spends less on environmental protection and natural resources management when assessed by a number of indicators: Ontario spends less as a percentage of the province's total budget; less as a percentage of the province's gross domestic product (GDP); and less per capita. Ontario's comparatively low spending in these areas is especially alarming given the size of its population and sizable resource-based sectors, both of which place considerable pressure on the natural environment and create greater demand for environmental protection and natural resource management.

Moreover, although they have fluctuated over the years, the adjusted operating budgets of both MOE and MNR still have not returned to what they were in the early 1990s (see Figures 2.3.3 and 2.3.4), despite expanded responsibilities and mandates.

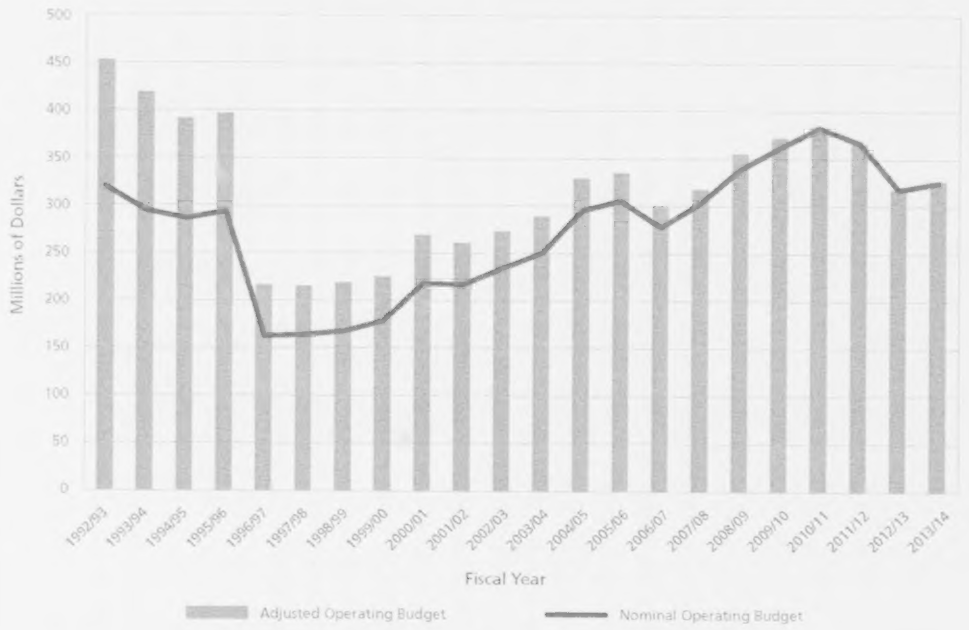


**Figure 2.3.3.**
Nominal (unadjusted) and adjusted (to 2011 dollars) operating budgets for MOE from 1992/1993 to 2013/2014. (Sources Ministry of the Environment, Expenditure Estimates of the Province of Ontario, Ministry of Finance, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).

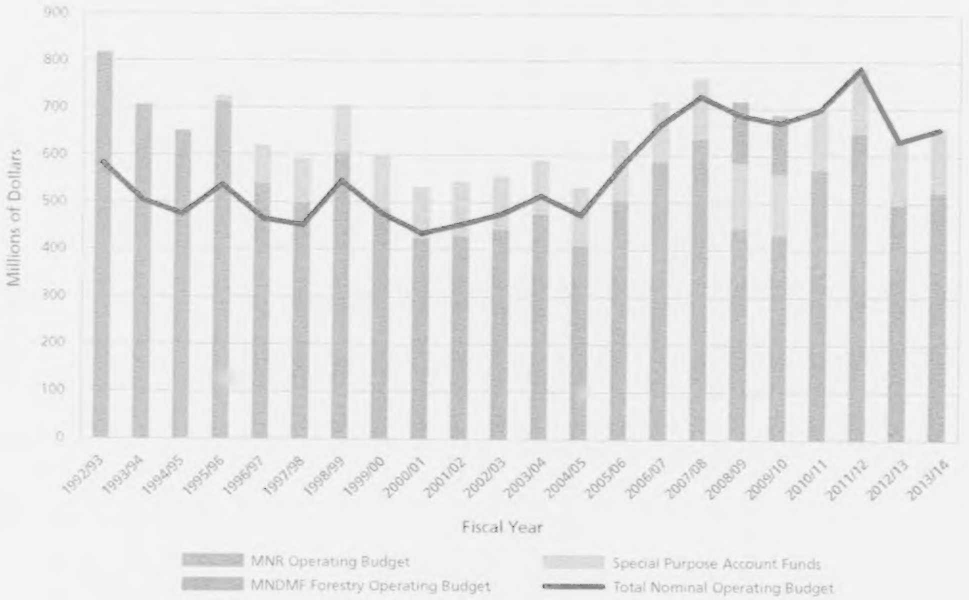


**Figure 2.3.4.**
Nominal (unadjusted) and adjusted (to 2011 dollars) operating budgets (including Special Purpose Accounts) for MNR from 1992/1993 to 2013/2014. Note, the forestry program was housed in the Ministry of Northern Development, Mines and Forestry (MNDMF) in 2008/2009 and 2009/2010. (Sources: Expenditure Estimates of the Province of Ontario, Ministry of Finance, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).

As the ECO has discussed before, MOE and MNR have essential and substantial mandates, and are expected to deliver ambitious programs while dealing with new environmental concerns and expanding responsibilities. Without adequate resources – and despite best efforts to realign existing resources, search for efficiencies and streamline operations – these ministries have had to neglect core responsibilities (see Part 2.1 of this Annual Report for information about the transformation of MNR's operations). This gradual but devastating diminishment of two of Ontario's most important ministries must not continue. New financial tools to generate revenue and recover the costs of environmental monitoring and regulatory oversight should certainly be part of the solution; however, the province must also make a long-term commitment to rebuild MOE and MNR. Ontario's environment and natural heritage deserve no less.

*For ministry comments, please see Appendix C.*

# 3

# INFORMATION, SCIENCE AND MONITORING

Solving problems requires knowing and understanding what the problems are. Without the knowledge base to inform decision making, policies may be misdirected, ineffective or even exacerbate the very problems government is tasked with solving.

Government has the primary responsibility to collect and understand this knowledge, which can range from scientific samples to Aboriginal traditional knowledge. The provincial government has mandated several ministries with protecting the environment, thereby obliging them to acquire the scientific expertise and knowledge necessary to fulfil that mandate. While much expertise and knowledge can be found in public servants, they must be given the authority and responsibility to go out and acquire the necessary information through scientific monitoring and other work to effectively do their jobs.

This part of the Annual Report focuses on the need for the Ontario government to undertake broad-scale environmental monitoring programs in both northern and southern Ontario. Each of these areas of the province is undergoing enormous changes and there are many problems that loom on the horizon. Current government monitoring programs are not up to the challenge. The ECO reports that there is no statutory requirement for monitoring across Ontario's Far North, which is necessary to inform sound decision making in the Ring of Fire. In southern Ontario, there is a mix of regional land use plans, such as the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan, which the Ontario government will review in 2015; the ECO reports that there is a dearth of data and information gathered to date by the government to inform this sweeping review in two years' time.

## 3.1 Looking Before We Leap: Making Informed Decisions for the Far North and the Ring of Fire

### Development in Ontario's Far North

Ontario's Far North region is one of the world's largest intact ecosystems and makes up 42 per cent of the province's area. The Far North is an area of international ecological significance and a stronghold for biodiversity, including such at-risk mammals as caribou, wolverine and polar bear. Its peatlands are important carbon stores, and its forests comprise part of the largest block of boreal forest still free from large-scale human disturbance anywhere in the world. The Far North holds the traditional territories of 38 First Nations communities.

In the heart of the Far North is an area now referred to as the "Ring of Fire" – a remote, crescent-shaped region under intense mining exploration interest (see Figure 3.1.1). Significant deposits of chromite and nickel, as well as copper, zinc, gold and other minerals, have been discovered in the Ring of Fire over the past decade. As of April 2013, 21 companies had mining claims in the region, covering an area of 2,250 square kilometres (km$^2$), and there is little doubt

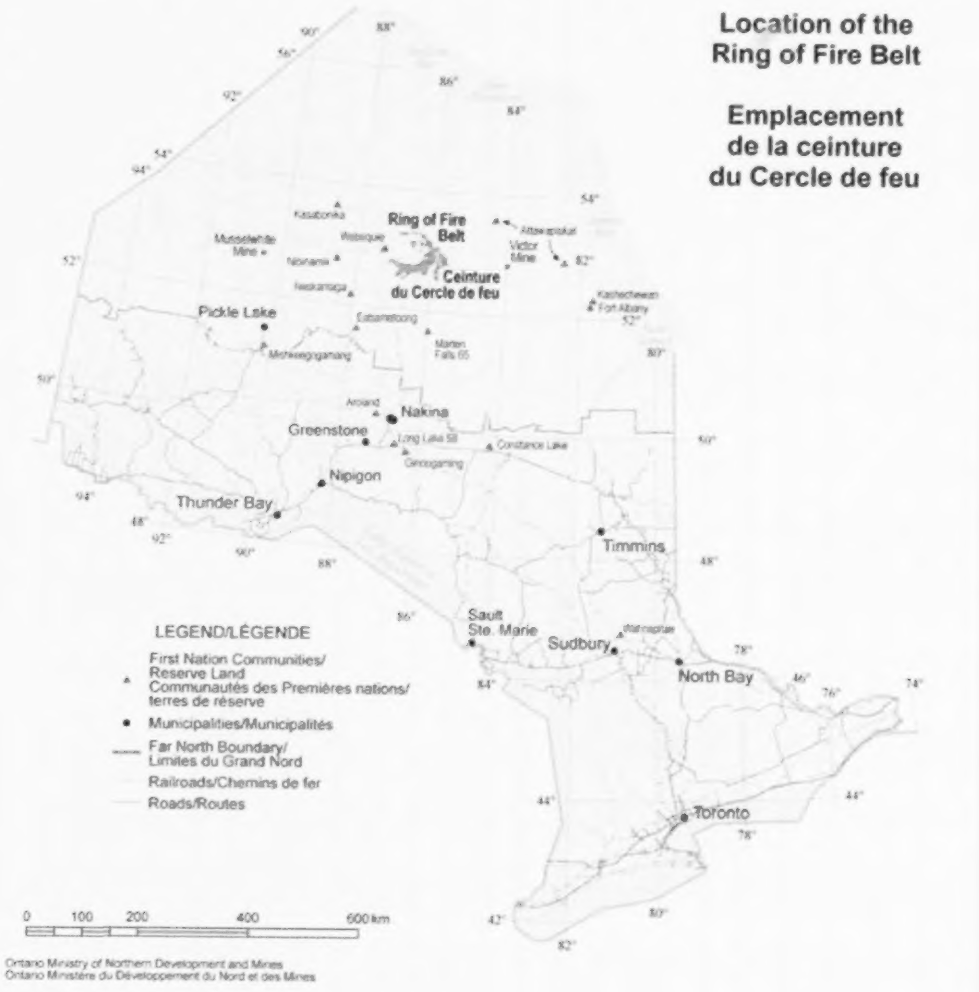

Location of the Ring of Fire Belt
Emplacement de la ceinture du Cercle de feu
Ring of Fire Belt
Ceinture du Cercle de feu
Kasabonika
Webequie
Musselwhite Mine
Neskantaga
Attawapiskat
Victor Mine
Kashechewan
Fort Albany
Pickle Lake
Mishkeegogamang
Eabametoong
Marten Falls 65
Aroland
Nakina
Greenstone
Long Lake 58
Ginoogaming
Constance Lake
Nipigon
Thunder Bay
Timmins
Sault Ste. Marie
Sudbury
Wahnapitae
North Bay
Toronto
LEGEND/LÉGENDE
First Nation Communities/ Reserve Land Communautés des Premières nations/ terres de réserve
Municipalities/Municipalités
Far North Boundary/ Limites du Grand Nord
Railroads/Chemins de fer
Roads/Routes
0
100
200
400
600 km
Ontario Ministry of Northern Development and Mines
Ontario Ministère du Développement du Nord et des Mines

Figure 3.1.1.
Location of the Ring of Fire in Ontario's Far North. (Source: Ministry of Northern Development and Mines.)

that the significant discoveries in the area will be developed into working mines in the coming years. The magnitude of the Ring of Fire's development potential and economic opportunity – which has led some to dub the area "Ontario's oil sands" – make it the most immediate and obvious planning issue in the Far North.

The *Far North Act, 2010* was designed to implement a land use planning system across Ontario's Far North and sets out a joint planning process between First Nations and the Ontario government. The Act requires that, prior to the opening of a mine in a Far North region, a community-based land use plan for that region must be jointly developed and approved by the appropriate First Nation(s) and the Ontario government, unless Cabinet overrides this requirement by issuing an exempting order. The Act also allows for the establishment of a Joint Body – made up of equal numbers of First Nation members and Ontario government officials – to advise the Minister of Natural Resources on matters related to the development, implementation and co-ordination of land use planning in the Far North. As of June 2013, this Joint Body had not been established. For more on the *Far North Act, 2010*, see Part 2.2 of the ECO's 2010/2011 Annual Report.

Proposals for major infrastructure in and to the region – such as the placement of transportation corridors and energy transmission lines – are now being considered in advance of mine development and prior to the completion of the land use plans described by the *Far North Act, 2010*. Currently, many First Nation communities in the Far North are dependent on winter roads or are only accessible by aircraft.

These infrastructure decisions are of monumental importance. Road or rail access will create a new world of possibilities for the Far North, opening a truly new frontier for exploration, development and activities like hunting and fishing. Increased accessibility also will change the way Ontarians think about the Far North – it won't seem so far anymore.

But what will this development mean for the largely pristine, intact ecosystem of the Far North?

## Environmental Concerns about Development in the Ring of Fire

New development in the Ring of Fire raises a host of potential environmental concerns (see Table 3.1.1). The cumulative environmental effects from mine development across the Ring of Fire are also a significant concern, given the region's ecological significance.

**Table 3.1.1.**

Some Potential Environmental Effects of Mining and Mining-Related Infrastructure in the Ring of Fire

| Development | Potential Environmental Effects that should be Evaluated |
|---|---|
| **Mine construction and operation** | • Loss and fragmentation of terrestrial and aquatic habitat, including that of species at risk like caribou, wolverine and lake sturgeon;<br>• Groundwater flow impacts and subsequent impacts to wetlands, peat and water movement;<br>• Pumping of mine water affecting surface water quality;<br>• Fuel or chemical spills at the site;<br>• Mobilization of naturally occurring metals, such as arsenic, lead, mercury and cadmium; and<br>• Metal/contaminant seepage to soils and groundwater from aggregate piles and settling ponds during mine construction and operation. |
| **Transportation corridors** (all-season roads or railways) | • Fragmentation of both terrestrial and aquatic habitat (e.g., impacts on migration and daily movements);<br>• Ongoing disturbance to wildlife due to noise, traffic and dust;<br>• Impacts on stream morphology and flow;<br>• Increased sedimentation of water bodies from road runoff;<br>• Increased access and traffic to wilderness areas, increasing fishing and hunting pressure;<br>• Fragmentation and disturbance of major rivers, wetland areas and protected areas; and<br>• Increased greenhouse gas emissions from transportation fuels. |
| **Smelters or other processing facilities** | • Soil, sediment, water and air contamination with chromium(VI) (a toxic form of the element chromium);<br>• Emission of air pollutants, such as nitrogen oxides, carbon oxides, sulphur oxides and particulate dusts that contain heavy metals; and<br>• Water pollution from waste rock and tailings management. |
| **Energy use and transmission** | • Aquatic habitat fragmentation or loss due to hydro-electric dam construction and operation; and<br>• Fragmentation of both terrestrial and aquatic habitat due to transmission lines. |

In addition to the potential impacts from the construction and operation of the mines, the development of associated infrastructure – mainly transportation corridors and transmission lines – may also have significant environmental impacts in the Far North. Irrespective of its eventual placement, the transportation corridor to the Ring of Fire (see box on proposal in the Ring of Fire) will require an approximately 300-km-long tract of land through relatively undeveloped areas of the boreal forest and Hudson Bay lowlands (see Figure 3.1.2).

Before moving ahead with approvals for the construction of multiple mines and supporting infrastructure in the Ring of Fire, the government should understand the potential environmental

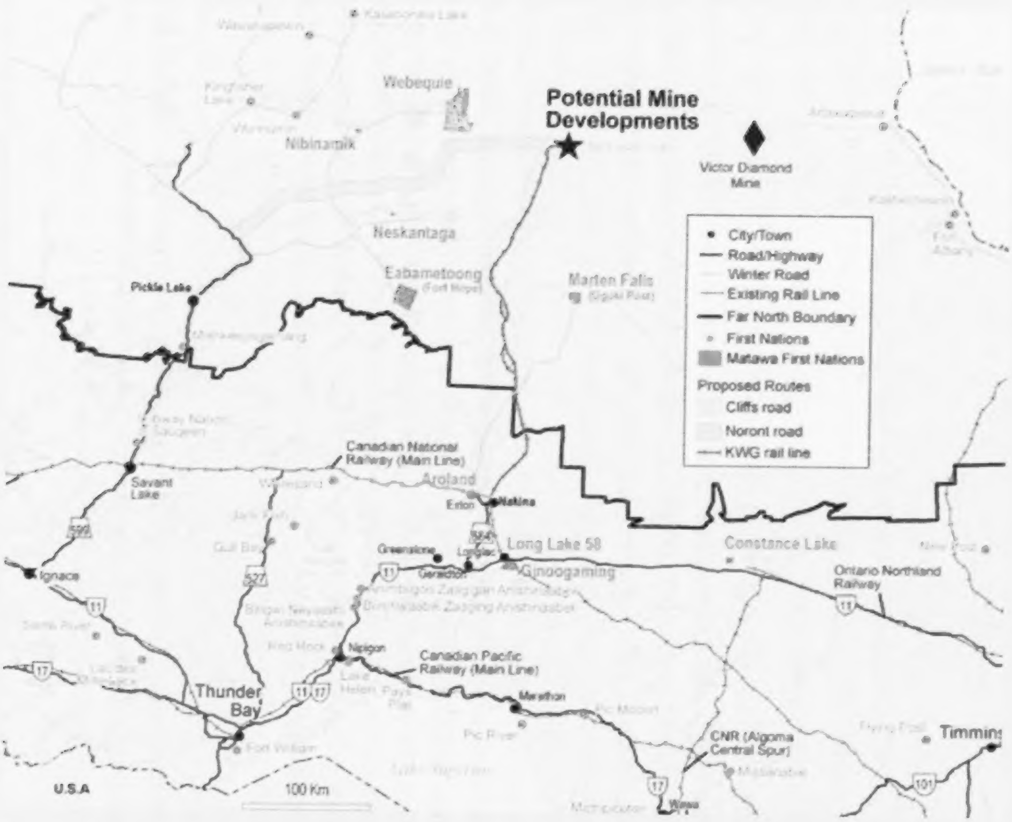

Webequie
Nibinamik
Potential Mine Developments
Victor Diamond Mine
Neskantaga
Eabametoong
(Fort Hope)
Marten Falls
Pickle Lake
City/Town
Road/Highway
Winter Road
Existing Rail Line
Far North Boundary
First Nations
Mattawa First Nations
Proposed Routes
Cliffs road
Noront road
KWG rail line
Canadian National Railway (Main Line)
Savant Lake
Aroland
Exton
Nakina
599
584
Greenstone
Longlac
Long Lake 58
Geraldton
Ginoogaming
Constance Lake
Ontario Northland Railway
Ignace
11
527
17
Nipigon
Canadian Pacific Railway (Main Line)
Thunder Bay
11 17
Marathon
Fort William
Pic River
CNR (Algoma Central Spur)
Timmins
101
U.S.A
100 Km
Wawa

**Figure 3.1.2.**

Proposed transportation route to the Ring of Fire. (Source: Ministry of Northern Development and Mines.)

effects on local ecological systems, as well as across the Far North as a whole. Decisions on how to proceed should rest upon a solid base of environmental knowledge – collected through monitoring and evaluated through a robust environmental assessment process.

In 2010, the Far North Science Advisory Panel, an independent group of scientists appointed by the provincial government, completed a report that provided advice on how to proceed with land use planning in Far North ecosystems, including the Ring of Fire. The Panel recommended that the Ontario government establish long-term, securely-funded monitoring programs co-ordinated between ministries, governments and researchers, and that these monitoring programs should formally report to the Legislature on the "State of the Far North" every five years. The panel also recommended that the government immediately designate the Ring of Fire as a priority management area, with an interim regional planning process. The report included a list of inventory and monitoring needs that could form the basis of a monitoring program to inform land use planning decisions across the Far North. The government has not responded to or acted upon either of these recommendations.

*For ministry comments, please see Appendix C.*

### Proposals in the Ring of Fire (as of July 2013)

A number of development proposals have been made by companies for the Ring of Fire region. Three examples that have been subject to public and media interest are described here.

Cliffs Natural Resources Inc., through its subsidiaries and affiliates ("Cliffs"), has proposed an open pit chromite mine at its Black Thor deposit with an expected mine life of approximately 30 years. Some components proposed for construction include: the mine site; an ore processing facility; an "integrated transportation system" (including an all-weather road corridor from Nakina to the Ring of Fire); and a ferrochrome production facility near Sudbury. The Cliffs Chromite Project is in the early stages of an environmental assessment at both the provincial and federal levels. The provincial government indicated in August 2012 that it is in discussions with Cliffs to assist in financing and developing the proposed north-south, all-season road to connect the Ring of Fire with existing roads (see Figure 3.1.2). In June 2013, Cliffs announced that it was temporarily suspending its environmental assessment activities.

Noront Resources Ltd. ("Noront") has proposed an underground copper-nickel-platinum group element mine, with a mine life of 11 years, slated to begin production in 2016/2017. This proposed mine would be only about 7 km from Cliffs' proposed mine. The proposal includes: an underground mine, mill and processing plant; a trans-load facility; an all-season road (with an east-west orientation, from the Pickle Lake area to the project area); and a diesel-fuelled power generation station. Noront has proposed to construct as much of its mining operations underground as possible. Noront is also in early stages of the environmental assessment process at both the provincial and federal levels.

KWG Resources Inc. ("KWG"; under its subsidiary Canada Chrome Corporation) proposes to build a railway along a north-south route from the Ring of Fire to connect with the Trans Canada CN line. KWG first staked claims along a possible transportation corridor in 2009 (for further discussion, see Part 5.1.3 of the ECO's 2009/2010 Annual Report). The company is in discussion with Ontario Northland Transportation Commission to work together on a railway. Although KWG has not formally initiated any environmental assessment processes, the company applied in August 2012 for 32 aggregate permits at sites along the mineral claims that make up the 308-km "railroad right-of-way."

Cliffs Natural Resources Inc. has made an application for an easement over mining claims owned by Canada Chrome Corporation, in order to construct its proposed road. As of July 2013, the Ontario Mining and Lands Commissioner had not issued a decision on the matter.

## 3.1.1 Environmental Monitoring Necessary for Decision Making in the Far North

Environmental monitoring can be defined as repeated or continuous field-based measurements of biological, chemical and physical parameters, collected and analyzed over a period of time. Environmental monitoring is essential for a number of reasons. It provides critical insights into changes in the systems that humans and all other organisms depend upon for life and well-being. In a relatively unstudied area, like the Ring of Fire, it is vital that accurate baseline information be collected prior to significant human-induced change in order to understand the context, magnitude and implications of changes when they do occur, as distinct from the natural variability of the ecosystem. Long-term trends can be difficult to distinguish from yearly or temporary fluctuations without many years of data. With a long-term record of change, monitoring data could allow one to anticipate, or at least identify, ecological tipping points or thresholds of change and to create accurate predictive models (for more information on tipping points and ecosystem restructuring, see Chapter 2.1 of the ECO's 2011/2012 Annual Report, Part 2). Monitoring is also a component of due diligence and can serve to assure that negative environmental impacts related to development have been minimized.

Monitoring data are necessary for making informed management decisions. Without sufficient monitoring, the government cannot undertake an adaptive approach that adapts or amends policies based on the best possible information. For example, a lack of adequate baseline information would handicap environmental assessments and other approvals, as neither government nor industry could accurately predict potential environmental impacts or develop effective mitigation methods. Environmental monitoring is also critical to the enforcement of environmental laws, such as determining a proponent's compliance with environmental standards or approvals, holding proponents accountable to the public, or ensuring environmental protection.

## Effective Environmental Monitoring

Environmental monitoring requires a number of key components to effectively inform environmental decision making (see Figure 3.1.3). A long-term commitment, adequate financial investment and proper experimental design are essential for a monitoring program; however,

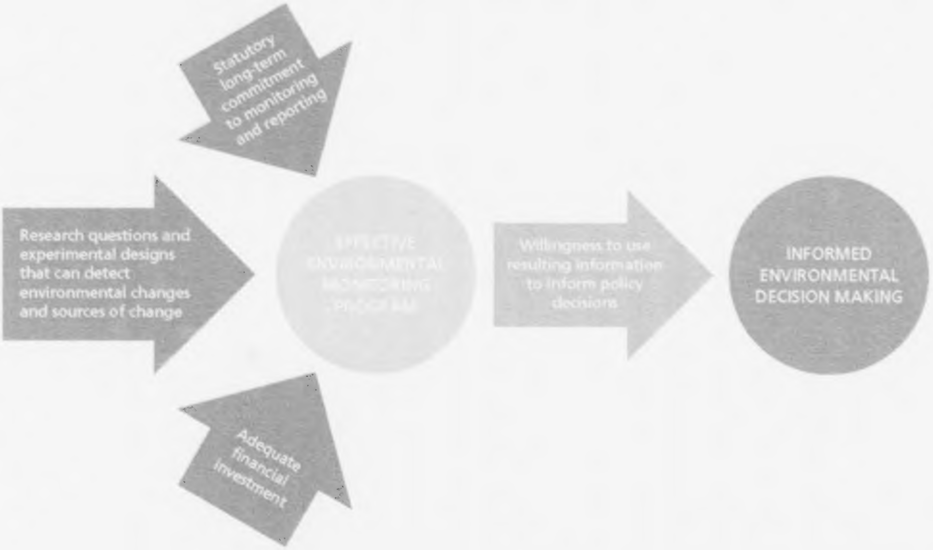

Statutory long-term commitment to monitoring and reporting
Research questions and experimental designs that can detect environmental changes and sources of change
EFFECTIVE ENVIRONMENTAL MONITORING PROGRAM
Willingness to use resulting information to inform policy decisions
INFORMED ENVIRONMENTAL DECISION MAKING
Adequate financial investment

**Figure 3.1.3.**

Components of an effective environmental monitoring program and its use.

to effect any change, the government must also be willing to use the information when making policy decisions. Regular public reporting of results would further add transparency, improve accountability and increase public confidence in an environmental monitoring program.

Not every environmental monitoring program is successful. The collection and utility of monitoring data could be compromised if any one of the components described above is absent.

Ideally, a commitment to the monitoring program should be grounded in legislation to aid the long-term continuance of the program; for instance, to prevent a program from being arbitrarily cancelled due to a change in ministry structure. In addition, a successful monitoring program requires a long-term dedicated source of adequate funding. For example, even though Ontario's Provincial Wildlife Population Monitoring Program is legally mandated to be carried out by the Ministry of Natural Resources (MNR), a lack of funds to support the program has caused its failure (for more information, see Chapter 2.6 of Part 2 of the ECO's 2011/2012 Annual Report). Inadequate monitoring design can also jeopardize a program's effectiveness.

Even when an environmental monitoring program has all of the necessary components, in order to be effective, the government must be willing to use the information gathered to make informed policy decisions. In some cases, this can be a challenge if monitoring data reveal politically inconvenient or undesirable environmental realities.

## Government Responsibility for Environmental Monitoring in the Ring of Fire

Responsibility for environmental monitoring, at a regional scale and over the long term, should ultimately lie with the provincial government. It is the government's job to act in the public interest to properly administer public lands and protect the environment – a unique role that cannot be assumed by industry proponents or off-loaded to academic institutions.

Although industry proponents may be required under their approvals to minimize environmental impacts and undertake local baseline and ongoing monitoring around their own operations, it is simply not their responsibility to undertake monitoring across the broader region or to place their own monitoring within that regional context. Nor can government rely on academic or non-government researchers for environmental monitoring, since granting agencies do not as a general rule fund long-term monitoring projects.

There is no legal requirement for the provincial government to undertake environmental monitoring across the Ring of Fire or the Far North. Nevertheless, some ministries have recently undertaken limited research and baseline inventory studies in the region due to recent exploration interest and the passage of the *Far North Act, 2010*. For example, the Ontario Geological Survey, under the Ministry of Northern Development and Mines (MNDM), has completed several studies in the Ring of Fire, including bedrock geological mapping and lake sediment and water sampling geochemistry. Moreover, MNDM's Ring of Fire Secretariat states that it is considering undertaking long-term monitoring of environmental impacts on a regional basis, in collaboration with local First Nations communities, although no immediate plans are yet available as to how monitoring will be undertaken, how collected data will be used, or who will do it.

MNR reports it has been working in partnership with other ministries, the federal government and First Nations communities under a five-year plan to collect some limited baseline information in the Far North. The ministry states that the topics covered include: land, rivers and lakes; species of interest; natural values and biodiversity; Aboriginal traditional knowledge; and climate change. Full results and analysis of these studies are not yet publicly available, and it is uncertain what MNR's long-term plans are for monitoring beyond the 2009-2013 plan period. The ECO recommended in our 2002/2003 Annual Report that MNR undertake very much the same work and publicly report on it; yet, 10 years later, the same concerns remain.

## ECO COMMENT

Opportunities and pressures for development will only increase in the years ahead in the Ring of Fire and across Ontario's Far North. The planning decisions that the Ontario government makes right now will not only significantly affect how the region functions economically, but will also shape the future state of this globally significant ecosystem.

There is no legislative requirement for environmental monitoring in the Ring of Fire or across the Far North despite the indispensable information it could provide. The ECO urges the provincial government to take responsibility and make an immediate statutory commitment to long-term environmental monitoring of the Far North, including the Ring of Fire. Monitoring should be co-ordinated between the key ministries involved: in particular, MNR, MNDM and the Ministry of the Environment (MOE). It is essential that any environmental monitoring program in the Far North incorporate Aboriginal traditional knowledge and the active involvement of First Nations communities. The province made a recent commitment in its Ontario Government Plan to Conserve Biodiversity to develop an integrated, broad-scale monitoring program for all aspects of Ontario's biodiversity; environmental monitoring in the Far North is a necessary contribution to such a program.

The price of environmental monitoring is likely much lower than the social, environmental and monetary costs of trying to fix problems after they have already occurred. Monitoring information can lead to better decision making that can help avoid irreversible damage. The ECO strongly urges the government to invest the necessary financial resources in robust environmental monitoring in the Far North. While a long-term funding commitment for data collection may be difficult to establish in the current economic climate, assistance through cost recovery from industry should be explored.

Ontario is squandering the opportunity to base future decisions on the best attainable knowledge by not immediately undertaking a comprehensive program of environmental monitoring. The government is also thwarting any possibility for the public and future generations to understand whether development decisions in the Ring of Fire and the Far North succeed in minimizing environmental effects. The ECO encourages the government to commit to using information gathered through environmental monitoring to ensure defensible, informed environmental decision making in the Ring of Fire. An indication of this willingness would be to enshrine timelines for public reporting and policy reviews within a statutory responsibility for monitoring.

The ECO stated six years ago that Ontario has the opportunity to view the North as a "clean slate," to learn from past mistakes and cast a new vision in which environmental concerns are a priority rather than an afterthought (for further discussion, see page 72 of the ECO's 2006/2007 Annual Report). It is in the best interests of the public – especially those First Nations that will be directly affected – for the Ontario government to have a solid understanding of how the ecological and cultural landscape of the Ring of Fire is changing over time due to development. Now is the time to establish a strong environmental monitoring program in the Ring of Fire to inform important decisions – before it is too late.

| RECOMMENDATION 2 | *The ECO recommends that MOE, MNR and MNDM make a statutory commitment to long-term environmental monitoring for the Far North, including the Ring of Fire.* |
|---|---|

*For ministry comments, please see Appendix C.*

## 3.1.2 The Big Picture: Regional Strategic Environmental Assessment in the Ring of Fire

In October 2012, two individuals submitted an application requesting a review of the need for a new policy or regulation under the provincial *Environmental Assessment Act* (*EAA*) to establish a cumulative assessment framework for mineral development projects and associated infrastructure in Ontario's Far North, with a focus on the Ring of Fire area.

The applicants expressed concern that approvals for individual projects and supporting infrastructure are moving forward in advance of any regional strategic environmental assessment (R-SEA), and in advance of the establishment of community-based land use plans under the *Far North Act, 2010*. As such, the applicants argued, projects are being considered in a "haphazard" way through different assessment mechanisms, and without any apparent co-ordination or cumulative effects consideration. The ECO forwarded this application to MOE, which denied it in December 2012.

### Need for Regional Strategic Environmental Assessment

The applicants noted that the Canadian Council of Ministers of the Environment (CCME) has raised issues with the current environmental assessment approach in Canada, which only addresses mitigation of the impacts of individual projects, rather than dealing with issues of broad, regional environmental change and cumulative effects on ecosystems. In 2009, the CCME identified R-SEAs as a key area of interest.

The CCME defines R-SEA as "a process designed to systematically assess the potential environmental effects, including cumulative effects, of alternative strategic initiatives, policies, plans, or programs for a particular region." An R-SEA would evaluate the cumulative effects of land and resource use under different future scenarios and examine alternative development options. The CCME suggests criteria for triggering an R-SEA – for example, when establishing a framework for future development, land and resource use in a region, or for proposed development in a previously undeveloped region for which no current regional plan or strategy exists.

The applicants argued that there is a need for an R-SEA because there are multiple projects being proposed in the Ring of Fire region without any co-ordination and without the benefit of the completed land use plans under the *Far North Act, 2010*. MNR, which administers the Act, is in the preliminary stages of developing a Far North Land Use Strategy and is in the process of developing community-based land use plans with First Nations across the Far North. As of July 2013, the terms of reference for community-based land use plans in the Ring of Fire area had not been completed, let alone the plans themselves.

In addition, the applicants were particularly concerned about the lack of a cumulative assessment framework for the Far North, and questioned whether baseline information is being effectively collected or shared between projects. The applicants concluded that "this is clearly not a reasonable way to undertake to access and exploit such a significant region of this province."

## New Regulation under the *EAA* could establish an R-SEA

The purpose of Ontario's *EAA* is to protect, conserve and wisely manage the environment across the province. The Act sets out a planning and decision-making framework to evaluate the environmental effects of a proposed project, and provide for public consultation, prior to a decision being made on whether to proceed with development. Although most public sector projects fall under the Act's requirements, private undertakings are not subject to the *EAA* unless designated by regulation or if a company voluntarily agrees to have the *EAA* apply to its project. To date, proponents for two projects in the Ring of Fire have voluntarily initiated individual environmental assessments under the *EAA* (see box on proposals in the Ring of Fire on p. 68).

Projects may also be subject to an environmental assessment process under the federal *Canadian Environmental Assessment Act, 2012* (*CEAA*). However, as a result of changes to the *CEAA* made in 2012, fewer projects will now require federal environmental assessments.

The applicants argued that a new regulation under the provincial *EAA* is needed to establish an R-SEA and cumulative assessment framework for mineral exploitation projects and associated infrastructure in the Far North.

## Inadequacy and Misuse of Class Environmental Assessments

The applicants argued that the Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects is being misused as a tool for considering mineral exploitation and related projects in the Far North, and that it "was clearly originally designed for a far different purpose." Under this Class Environmental Assessment, MNR can issue approvals for a range of mining-related projects, such as access roads and the disposition of rights to Crown resources.

In addition, the applicants were critical of the Class Environmental Assessment for Activities of the Ministry of Northern Development and Mines under the *Mining Act*, which was approved in December 2012. The applicants noted that this Class Environmental Assessment does not address cumulative effects and argued that it would leave significant gaps in assessing threats.

# MINISTRY RESPONSE

MOE denied this application on December 21, 2012, concluding that the public interest does not warrant the requested review.

The ministry asserted that the *EAA* "already requires a transparent and public assessment of the potential environmental impacts from projects to which the act applies." The ministry also noted that other environmental assessment processes already "provide guidance for identifying mitigation measures." MOE concluded that "the local environment is well protected at the project level under the existing regulatory framework."

MOE also stated that the federal *CEAA* requires an assessment of cumulative effects. However, the ministry did not explain how recent changes to the *CEAA* will exclude some projects from the federal process or discuss whether MOE itself currently considers cumulative effects across multiple projects.

The ministry claims that the province is in the process of developing a long-term monitoring program for the Ring of Fire, noting that a "dialogue" between MNDM, the federal government and First Nations was initiated in May 2012. MOE provided no details about the environmental monitoring program.

MOE also stated that undertaking the requested review would duplicate or potentially delay efforts being led by MNDM's Ring of Fire Secretariat to address many of the issues identified by the applicants. The ministry did not provide any information about what efforts the Ring of Fire Secretariat is undertaking, nor did it provide any information on opportunities for participating in the efforts being led by the Secretariat.

The ministry noted that "there is already a legislative and policy framework to inform land use planning and development in the Far North." The ministry also stated that five communities have approved land use plans under the *Far North Act, 2010*, and many others are presently engaged in land use planning processes. MOE failed to explain that none of these completed plans are located in the Ring of Fire.

Finally, MOE pointed out that a Joint Body may be established under the *Far North Act, 2010*, which may recommend policy statements on matters to include in the Far North Land Use Strategy. However, MOE did not provide timelines as to when the Joint Body would be established or when the Far North Land Use Strategy would be completed. Therefore, it is unclear whether the Far North land use planning processes would be complete prior to the approvals for mining in the Ring of Fire.

*For the full text of the ministry decision, please see our website at www.eco.on.ca.*

## ECO COMMENT

Undertakings in the Ring of Fire will change the Far North forever. Evaluating environmental approvals strictly on a project-by-project basis is grossly inadequate in this sensitive, undeveloped and globally significant region. MOE does not address how it, or other governments, are assessing the cumulative effects of development or how it co-ordinates decisions under all government approvals. The ministry's assertion that environmental assessment processes "provide guidance for identifying mitigation measures" does not address the underlying issue – that regional, cumulative effects are not being examined and taken into account in government decision making in the Ring of Fire. Without such a robust and interconnected approvals process, the government has unnecessarily created uncertainty about its role with respect to both conservation and development; that is both bad for the environment and bad for business.

The ECO is also concerned about both the timing of, and process by which, planning decisions are being made by the Ontario government for the Ring of Fire. The *Far North Act, 2010* established a sound system of planning for the Far North. Unfortunately, it is still too early for the Act to have its intended effect on land use planning decisions that are being made right now. Key land use plans – and their zoning of where development is and is not appropriate – are years away from completion. Because exempting orders by Cabinet will likely be made for the projects already in the approval process, MOE's reliance on the planning process under the *Far North Act, 2010* as a basis for denying the application is nonsensical. Further, potentially using an order to open the first mine in the Ring of Fire will make a mockery of the legislation the government heralded as being the cornerstone of economic development and environmental protection in the Far North.

The ECO believes that MOE's response to the applicants inadequately addressed their concerns and did not constitute a valid rationale for denying the application. The ministry essentially argued that the current regulatory system is sufficient, concluding that "the local environment is well protected *at the project level* under the existing regulatory framework" (emphasis added). However, this response only reinforces the argument that MOE is currently taking a project-by-project view of development in the Ring of Fire. The ECO believes that MOE should have taken this opportunity to explore the methods available to examine cumulative effects across the region. Since recent changes to the federal *CEAA* will mean that fewer projects will undergo federal environmental assessments, MOE can no longer rely on that process to consider cumulative effects. MOE must develop its own framework to assess cumulative impacts in environmental assessment processes.

Development in the Ring of Fire represents the opening of a new frontier, which will constitute a redefinition of the entire socio-economic and environmental functioning of the region. Failing to address these fundamental issues now means that these problems will inevitably resurface across the Far North as development proceeds. This region will see many projects in the coming years, all of which will be operating on Crown land. The ECO believes that allowing this massive disposition of Crown resources without a comprehensive evaluation of environmental consequences is a piecemeal approach contrary to the purpose, spirit and intent of the *EAA*. The ECO believes that the applicants' request to establish a regulation under the *EAA* to serve as the terms of reference for an R-SEA is an appropriate approach to this problem, and the ECO urges the government to take immediate action on this critical issue.

**RECOMMENDATION 3**

*The ECO recommends that MOE, MNR and MNDM establish a strategic environmental review and permitting process for the Ring of Fire that expressly addresses cumulative impacts.*

# 3.2 Land Use Planning: Blind-Eye Measurement and Milquetoast Monitoring

Effective policy decisions need to be informed by the best available knowledge. Unfortunately, the Ontario government has neglected its responsibility to ensure that adequate information is collected on the practical functioning of the province's land use plans. If the provincial government continues to make critical land use planning decisions in this information vacuum, Ontario's land use planning system will be blind and unresponsive to the many challenges our province faces in the decades ahead.

## Ontario's Land Use Planning System

Ontario's land use planning system is governed by an array of interconnected legislation, policies and plans. At the provincial level, the *Planning Act* and the Provincial Policy Statement, 2005 (PPS) form the overarching legislative and policy basis for planning, while the *Places to Grow Act, 2005* provides a framework for directing population and economic growth.
The Ontario government has also developed a number of provincial land use plans that provide regional guidance (Figure 3.2.1), including:

- the Growth Plan for Northern Ontario, 2011 (Northern Ontario Plan), under the *Places to Grow Act, 2005*;
- the Growth Plan for the Greater Golden Horseshoe, 2006 (Growth Plan), under the *Places to Grow Act, 2005*;
- the Greenbelt Plan, under the *Greenbelt Act, 2005*;
- the Niagara Escarpment Plan (NEP), under the *Niagara Escarpment Planning and Development Act* (*NEPDA*);
- the Oak Ridges Moraine Conservation Plan (ORMCP), under the *Oak Ridges Moraine Conservation Act, 2001*; and
- the Lake Simcoe Protection Plan (LSPP), under the *Lake Simcoe Protection Act, 2008* (*LSPA*).

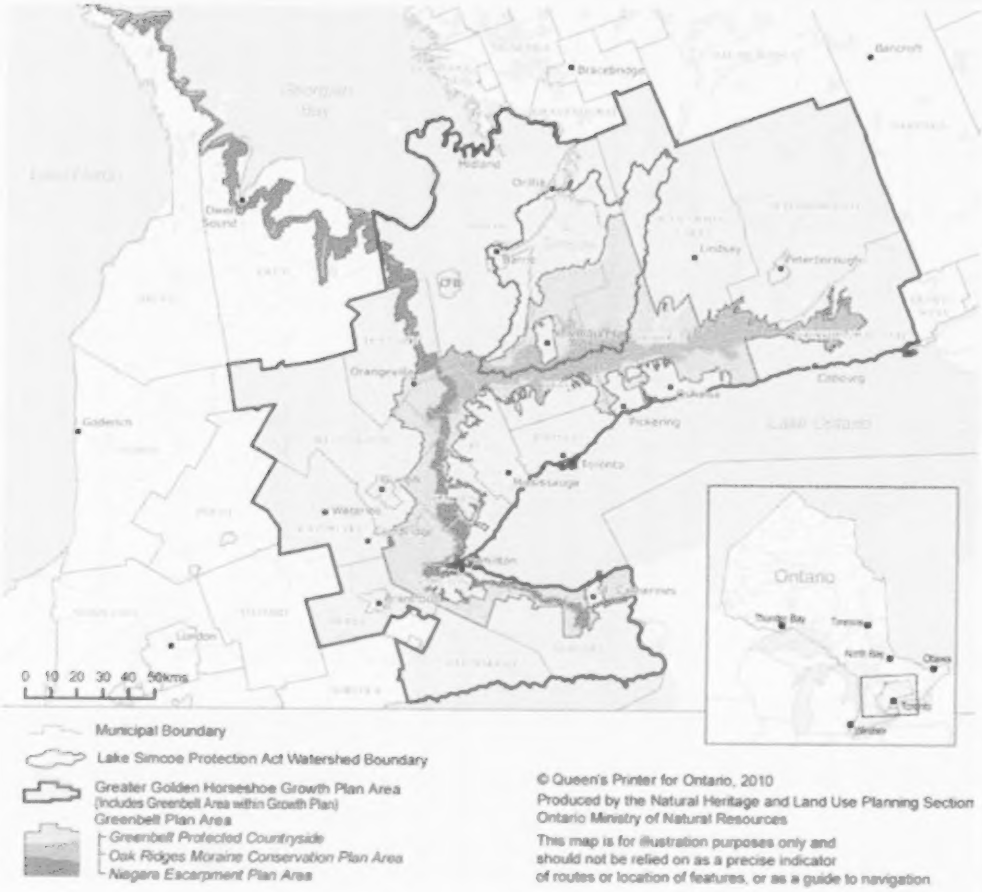
The PPS and each of these plans contain explicit obligations, mainly for the provincial government, to establish monitoring programs and/or performance indicators in order to evaluate the implementation and effectiveness of policies and to inform review processes.

While the PPS is currently subject to review on a five-year basis, regional plans are reviewed every 10 years. Monitoring and evaluation are particularly critical to inform these ongoing and upcoming reviews.

In the mid-1990s, the government introduced the One Window Provincial Planning Service, which made the Ministry of Municipal Affairs and Housing (MMAH) the lead ministry responsible for land use planning. This system greatly reduced the role that other ministries, such as the Ministry of the Environment (MOE) and Ministry of Natural Resources (MNR), had traditionally played in the planning process.

## Monitoring and Evaluation

Monitoring and evaluation are important because they can give plans and policies public legitimacy, help politicians and planners in decision making, assist planning reviews, and promote better long-term planning practices. Monitoring can also serve as an early warning system for emerging problems. Without adequate monitoring and evaluation, it is difficult


Bracebridge
Bancroft
Georgian Bay
Lake Huron
Midland
Orillia
Owen Sound
Barrie
Lindsay
Peterborough
CFB
Orangeville
Goderich
Cobourg
Pickering
Lake Ontario
Toronto
Mississauga
Waterloo
Guelph
Cambridge
Hamilton
Brantford
St. Catharines
London
Ontario
Thunder Bay
Timmins
North Bay
Ottawa
Toronto
Windsor
0 10 20 30 40 50kms
Municipal Boundary
Lake Simcoe Protection Act Watershed Boundary
Greater Golden Horseshoe Growth Plan Area (Includes Greenbelt Area within Growth Plan)
Greenbelt Plan Area
Greenbelt Protected Countryside
Oak Ridges Moraine Conservation Plan Area
Niagara Escarpment Plan Area
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Produced by the Natural Heritage and Land Use Planning Section
Ontario Ministry of Natural Resources
This map is for illustration purposes only and
should not be relied on as a precise indicator
of routes or location of features, or as a guide to navigation

**Figure 3.2.1**

Provincial Plan Areas. (Source: Ministry of Natural Resources.)

to assess whether planning policies are being properly implemented and whether they are effective. For further information see Chapter 6.4 of the ECO's 2011/2012 Annual Report, Part 2.

The first step in establishing an evaluation framework is to clearly define a plan's objectives. Second, the framework should identify indicators that provide a means of measuring performance. Third, there must be monitoring to evaluate whether outcomes on the ground are in line with the plan's key objectives.

Indicators that assess a plan's effectiveness on paper do not demonstrate whether objectives are being achieved on the ground. Indicators should measure the physical and ecological impact of policies. Indicators and monitoring strategies should also be clearly defined within plans to provide direction for planning and implementation, and to encourage better monitoring from the outset.

In order to provide a useful picture of land use change, monitoring should be carried out at spatial scales that are appropriate to the issues of interest. In addition, given the gradual effects of planning policies on the landscape, long-term monitoring is essential; this allows for repeated measurements and scientifically defensible conclusions. It is also important to ensure that monitoring takes place from the outset in order to establish baseline conditions.

When planning goals are concerned with the protection of ecosystems and natural heritage, monitoring data should be shared among monitoring and planning participants. Many ministries, municipalities, conservation authorities, and environmental groups collect monitoring data, but this information may not be complete, shared or comparable.

## Provincial Land Use Plans and Policies

### *The Provincial Policy Statement, 2005*

The PPS is a core element of Ontario's planning system, providing guidance on: land use patterns and infrastructure; public health and safety; and the management of natural resources, including the protection of natural heritage features. In March 2010, MMAH commenced a review of the PPS, which is currently underway.

The PPS requires the provincial government to identify performance indicators to measure the effectiveness of its policies and to monitor implementation. Municipalities are also encouraged to establish indicators to monitor the implementation of policies in their official plans.

In 2010, the government finalized a set of performance monitoring indicators through a process co-ordinated by MMAH. A small number of these indicators examine whether PPS policies have been effective on the ground, for example, by assessing the total area of land rehabilitated from aggregate extraction. However, the majority simply measure the number of municipalities that have incorporated a given policy into their official plans. For example, the number of municipalities incorporating significant wetland mapping into their official plans is an indicator, yet not whether wetlands are faring differently over time based on land use changes and policies.

MMAH has not released the results of its PPS monitoring efforts. In October 2012, the ECO requested this information but, as of July 2013, MMAH had not provided any data, analysis or conclusions. However, MMAH informed the ECO that it is using the performance monitoring results to inform the current PPS review.

### *Growth Plan for Northern Ontario, 2011*

Finalized in 2011, the Northern Ontario Plan provides a 25-year framework to guide decision making and investment planning in the North. Its policies focus on investment in infrastructure, as well as development in "economic and service hubs" and municipalities with "strategic core areas." The plan's broad environmental policies address the sustainable development of natural resources, environmental protection, and environmental leadership and conservation. For further information, see Part 2.2.2 of the ECO's 2010/2011 Annual Report.

The plan requires the Minister of Infrastructure and the Minister of Northern Development and Mines to monitor and report on implementation and develop a set of performance indicators in co-operation with external partners. Part of the newly created Northern Policy Institute's mandate is to monitor the plan's implementation. As of July 2013, however, there was no indication that performance indicators were under development, nor have any implementation reports been publicly released.

### *Growth Plan for the Greater Golden Horseshoe, 2006*

The Growth Plan sets out density targets and planning priorities to direct growth in the Greater Golden Horseshoe, an area undergoing intense development. The Greater Golden Horseshoe covers 3.2 million hectares around the western end of Lake Ontario.

The Minister of Infrastructure is required to develop indicators and to monitor implementation of the plan. In addition, municipalities must monitor and report on implementation within their jurisdictions.

The Ministry of Infrastructure (MOI) amended the plan in January 2012 to provide direction for the Simcoe Sub-Area (see Chapter 3.5 of the ECO's 2011/2012 Annual Report, Part 2). In June 2013, a second amendment was made to the plan, which extended the plan's horizon from 2031 to 2041 and updated and extended the population and employment forecasts for municipalities from 2031 to 2041 (Environmental Registry #011-7468).

In 2011, MOI released a fifth anniversary update that summarized the progress in four areas of the Growth Plan. MOI has stated that it is undertaking research and analysis, and that performance measures will be developed; however, no substantive details have been released regarding the development of a monitoring and evaluation program.

### *Greenbelt Plan*

The Greenbelt encompasses 1.8 million acres of agricultural and environmentally sensitive land between the Niagara Peninsula and Rice Lake, including lands in the NEP and ORMCP plan areas. The plan is intended to provide protection of prime agricultural land and environmentally sensitive areas from urban development.

The Greenbelt Plan requires performance measures to be established through MMAH's Municipal Performance Measurement Program (MPMP). Under this program, municipalities are required to report annually on a number of service areas; however, only five land use planning measures are tracked, which largely focus on agricultural designations.

The government is also obligated to identify performance indicators to measure the plan's effectiveness, to identify the roles of partners in the collection and analysis of data, and to provide for the collection, publication and discussion of results. In 2010, MMAH posted a draft

Greenbelt Plan Performance Monitoring Framework discussion paper on the Environmental Registry (#010-9407). It proposes "an integrated and layered monitoring framework" under which the Greenbelt Plan, NEP and ORMCP would be assessed.

The draft framework provides a series of sample indicators that address Greenbelt policy themes. These draft indicators suggest that the framework may evaluate on-the-ground results rather than simply formal compliance, for example, by measuring the total change in the area of provincially significant areas of natural and scientific interest. However, the proposal also highlights the issue of data limitations, noting that the framework and sample indicators were selected on the basis of available data. Although the stated purpose of developing the performance monitoring program is to inform the 10-year review, there has been no indication of further progress since the draft framework was posted on the Registry.

### *Niagara Escarpment Plan*

Designated as a World Biosphere Reserve in 1990, the Niagara Escarpment is a forested ridge of sedimentary rock that spans 725 kilometres (km) from Queenston to Tobermory. The *NEPDA* was enacted to maintain the Escarpment and surrounding area as a continuous natural environment and to ensure compatible development; it also provided for the establishment of the NEP.

MNR administers implementation of the Niagara Escarpment Program. However, the Niagara Escarpment Commission (NEC), an agency of MNR, was tasked with preparing the NEP and administering development control in the region.

The NEP requires the development and implementation of an environmental monitoring program to assess and report on the effectiveness of policies, decisions and practices. The monitoring information is to be used in implementation as well as during the plan's reviews. The NEC established the Ontario Niagara Escarpment (ONE) Monitoring Program to determine whether the plan is accomplishing its objectives. The program assesses the implementation and effectiveness of the NEP in several areas, including natural heritage, water, land use, tourism and recreation, and the Niagara Escarpment Parks and Open Space System. It employs landscape- and site-level monitoring to assess environmental change over time, as well as ecosystem function.

### *Oak Ridges Moraine Conservation Plan*

The Oak Ridges Moraine stretches 160 km from the Trent River to the Niagara Escarpment. The ORMCP is intended "to provide land use and resource management planning direction ... on how to protect the Moraine's ecological and hydrological features and functions." It requires the government to: identify performance indicators; establish a monitoring network to assess changes in the Moraine's ecological integrity; assess the plan's effectiveness; and identify improvements.

However, to date, a formal monitoring program for the ORMCP has not been established. The Oak Ridges Moraine Foundation (ORMF), a non-profit organization, is the only group to have completed a comprehensive review of the plan's effectiveness; in 2011, ORMF released an eight-volume report that measures the plan's success. However, the provincial government discontinued funding for ORMF in 2012, effectively destroying its ability to continue this work and participate in the 2015 review. In addition, the Monitoring the Moraine project was a community-based initiative that helped track the progress of the ORMCP; however, the program concluded in 2012. For further information, see Part 7.2 of the ECO's 2010/2011 Annual Report.

### *Lake Simcoe Protection Plan*

The Lake Simcoe watershed is home to important ecological, urban and agricultural systems, and includes portions of the Oak Ridges Moraine and the Greenbelt. The *LSPA* and the LSPP were introduced to protect and restore the ecological health of the Lake Simcoe watershed. The LSPP provides a series of targets, indicators and policies for the management of aquatic life, water quality, water quantity, shorelines and natural heritage, and other threats/activities (i.e., invasive species, climate change and recreational activities).

The plan requires the design and implementation of a comprehensive monitoring strategy. The *LSPA* and LSPP require MOE to report every five years on the results of monitoring programs and whether the LSPP's objectives have been achieved. The *LSPA* also requires the Minister of the Environment to prepare an annual report that describes implementation measures and summarizes the advice given by advisory committees. To date, two annual reports have been released. As of July 2013, neither report had been posted by MOE on the Registry as required.

## Land Use Planning and Biodiversity: Both Need Monitoring

A consistent theme across the PPS and Ontario's regional land use plans is the protection of natural heritage. Accordingly, these plans are recognized as playing important roles in Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity 2012-2020. It commits the government to a long-term biodiversity monitoring system, noting that it "is crucial to ensure that Ontario's efforts are really making a difference to biodiversity." As of July 2013, no co-ordinated biodiversity monitoring program had been established by the province.

Given the strong connection between land use and the protection of biodiversity, and the common need for monitoring, there is an excellent opportunity for co-ordinating monitoring activities in these two areas. The alignment of monitoring strategies and activities would not only offer efficiency, but could also assist in strengthening the mutually supportive relationship between Ontario's land use planning system and the conservation of biodiversity.

## ECO COMMENT

The ECO is astounded by the government's ongoing failure to develop adequate monitoring and evaluation programs for the Greenbelt Plan and the ORMCP. In the case of Lake Simcoe, MOE's failure to fully comply with statutory reporting and public notice obligations is equally troubling. Furthermore, the introduction of amendments to the Growth Plan in the absence of any comprehensive information on how the overall planning system is functioning is seriously disconcerting. Given this dismal lack of data across the board, the ECO is perplexed as to how any sort of principled and sensible review of the Greenbelt, NEP and ORMCP will occur in 2015.

Although, in principle, MMAH is the main ministry responsible for land use planning in the province, monitoring responsibilities and activities are fragmented between five main ministries (MMAH, MOE, MOI, MNR and the Ministry of Northern Development and Mines) and numerous third party organizations. This piecemeal approach has resulted in highly inefficient and inconsistent monitoring, with significant gaps in knowledge that preclude a comprehensive picture of land use beyond the boundaries of individual plan areas and in the province as a whole. These systemic failings bring into question the functioning of the One Window Provincial Planning Service, which has been the subject of much criticism since its establishment. The ECO believes that the time has come for public scrutiny and the review of the One Window system.

The Ontario government must restore the active role that MOE and MNR once played in the provincial planning process. The ECO believes that the Ontario government should enact a statutory commitment, along with the necessary resources, for MNR and MOE to establish a framework to collect and assess province-wide environmental monitoring data for explicit use in land use planning. The framework, along with all data and analysis, should not only be accessible to all monitoring participants, but should be open to the general public as well.

The establishment of a transparent monitoring and evaluation framework for Ontario's land use plans is not only a question of sound land use planning – it is a fundamental issue of government accountability. Creating an open, comprehensive monitoring framework will lead to a more robust and defensible system, and allow the public to have a greater understanding of and engagement in Ontario's land use planning process.

**RECOMMENDATION 4**

*The ECO recommends that MNR and MOE make a statutory commitment to long-term environmental monitoring to inform land use planning in southern Ontario.*

*For ministry comments, please see Appendix C.*

## 3.3 Ontario's Forgotten Habitats: Tallgrass Communities, Alvars and Coastal Dunes

Habitat protection and restoration efforts in Ontario tend to focus on wetlands, woodlands, riparian areas and the Great Lakes. While it is important to protect these areas, some of Ontario's lesser known habitats – such as tallgrass communities, coastal dunes and alvars – do not receive as much attention. These native ecosystems provide habitat for many specialized and at-risk species. Since pre-settlement times, these important natural areas have been reduced, fragmented and degraded. Generally, the provincial government has not played a consistent role in managing or protecting these rare and sensitive habitats – in essence, tallgrass communities, coastal dunes and alvars are Ontario's forgotten habitats.

## Tallgrass Communities

Tallgrass communities are areas with deep soil and minimal tree coverage. The communities are dominated by grasses, sedges and wildflowers, and include tallgrass prairie and savanna systems. Tallgrass prairies have less than 10 per cent tree cover; while savannas, representing a transition plant community between a prairie and a forest, have 10 to 35 per cent canopy cover.

While many people associate tallgrass prairies and savannas with western provinces like Alberta and Saskatchewan, these habitats once covered a significant part of southern Ontario. However, only a fraction (2 to 3 per cent) of southern Ontario's tallgrass communities remains from pre-settlement times. An estimated 2,200 hectares (ha) of native tallgrass prairies and savannas are left in southern Ontario, primarily in the Grand Bend-Port Franks, Pinery, Windsor, Rice Lake, Norfolk and the Walpole Island First Nation areas. Outside of these areas, most of the remaining remnants occur as small, isolated patches of less than 1 ha. The greatest threat to tallgrass communities is habitat destruction resulting from the conversion of natural areas to other land uses, such as agriculture and urban development. Other threats include alteration of the fire and groundwater regimes, overgrazing by livestock and deer, and pollution from agricultural run-off.

The practice of fire suppression is a significant factor in the disappearance of tallgrass communities. Fire is a natural ecological process that maintains the integrity of tallgrass ecosystems by removing non-tallgrass species that are fire-intolerant and creating favourable growing conditions for tallgrass species, such as big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*). Prescribed burns are used to maintain and restore tallgrass communities. For example, the Ministry of Natural Resources (MNR) reported that there were 13 prescribed burns completed across Ontario in the spring of 2012 for this purpose, totaling almost 130 ha. Additional tallgrass community prescribed burns were planned but had to be postponed until 2013 due to unfavourable weather conditions (e.g., too wet or too dry).

Since tallgrass communities are rare, it is not surprising that many of the species that inhabit these areas are also rare, including bird species such as Henslow's sparrow, northern bobwhite, and Bewick's wren. Furthermore, other birds may use the grassland habitat provided by tallgrass prairie and savanna systems, including meadowlark, bobolink and savanna sparrow. In the Lower Great Lakes-St. Lawrence region, grassland birds have declined by 70 per cent since the 1970s, with several species at risk of extirpation. Small fragments are not suitable for bird species that require large continuous habitats, which can force some species to settle in secondary habitats, such as farmlands. In addition, 22 per cent of rare vascular plant species in Ontario are found in tallgrass communities.

## Coastal Dunes

Coastal dunes are landforms, such as hills, mounds or ridges, of wind-deposited sand held together by beachgrasses and other vegetation. Approximately 2,000 ha of sand dunes are found in Ontario along the coasts of the Great Lakes, which is home to the world's largest collection of freshwater dunes. There are many provincially and globally rare and at-risk plant, animal and insect species that occur in the freshwater coastal dunes surrounding the Great Lakes. Some of these species include the provincially threatened Pitcher's thistle (*Cirsium pitcheri*), long-leaved reed grass (*Calamovilfa longifolia var. magna*), and the Lake Huron locust (*Trimerotropis huroniana*). After a 30-year absence, the provincially endangered piping plover (*Charadrius melodus*) recently returned to a number of Lake Huron and Georgian Bay dunes, such as Wasaga Beach and Sauble Beach.

Freshwater coastal dunes are fragile and vulnerable ecosystems with a fairly low tolerance for natural forces and human activities. Damage or destruction of vegetation on the dunes can result in erosion and undermine the integrity of the dunes. Threats to sand dunes include: shoreline development; recreational use by pedestrians and off-road vehicles that degrade and destroy vegetation; invasive species; man-made structures that are designed to protect or reinforce shorelines and/or that change the natural erosion and deposition of sand; and erosion during periods of high water levels.

## Alvars

Alvars are naturally open habitats with thin or no soil over limestone or dolostone that are adapted to seasonal cycles of flooding and drought. According to the State of the Great Lakes Report (2009), more than 90 per cent of the original extent of alvars has been destroyed or substantially degraded by agriculture and other human uses. Ontario currently contains between 6,000 and 9,335 ha of alvars, including sites on the Bruce Peninsula, Manitoulin Island, Pelee Island, the Napanee Plain and the Carden Plain.

Many species of animals, plants, molluscs and invertebrates found in alvar habitats are rare. For example, the provincially threatened lakeside daisy (*Hymenoxys herbacea*) and provincially endangered loggerhead shrike (*Lanius ludovicianus*) are found in alvars.

Alvar communities are threatened by habitat fragmentation and loss, trails and off-road vehicles, adjacent land uses (such as residential subdivisions), overgrazing by livestock, and invasive plant species such as European buckthorn (*Rhamnus cathartica*) and dog-strangling vine (*Cynanchum rossicum* and *Cynanchum louiseae*). An additional major threat to alvars in southern Ontario is aggregate extraction; it is predicted that this pressure will increase because of the growing market for limestone and dolostone.

## Protection and Restoration of Rare Habitats

In the absence of an overall policy framework specifically aimed at protecting rare habitats, there is a potpourri of legislation and policy that can be used for this purpose, as described below. Unfortunately, this has created a situation in Ontario where some areas of rare habitat are legally protected and some are not. According to 2010 data from MNR, 92 per cent of coastal dunes, 54 per cent of tallgrass prairie and savanna systems, and 21 per cent of alvars have some form of legal protection in Ontario (Figure 3.3.1).

### *Regulation and Policies*

Protections for tallgrass communities, alvars and coastal dunes in Ontario are found in the Greenbelt Plan, which includes these habitats in its definition of "key natural heritage features," thereby providing them some relief from development and site alteration in the protected countryside.

The Provincial Policy Statement, 2005 (PPS), on the other hand, does not provide any direct protections for tallgrass communities, alvars or coastal dunes. The PPS protects provincially

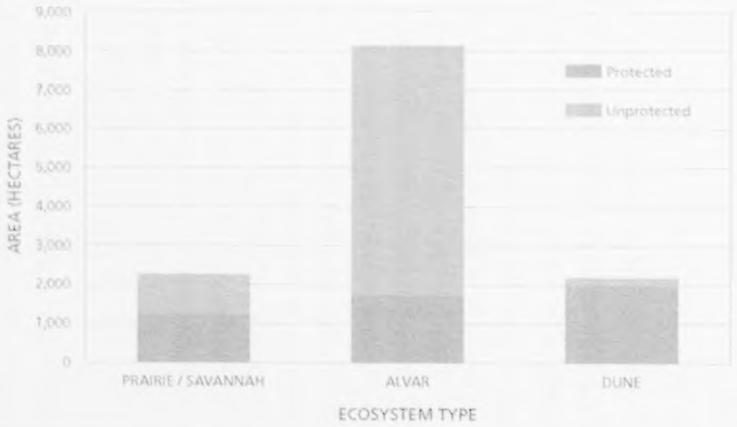


**Figure 3.3.1.**
Total area of rare habitats (prairie/savanna, alvar and dune) and the area legally protected in Ontario. (Source: State of Ontario's Biodiversity 2010 – Highlights Report. A Report of the Ontario Biodiversity Council.)

significant wetlands in southern Ontario, significant habitat of endangered and threatened species, and significant coastal wetlands from development and site alteration. It also provides some general protection provisions for significant woodlands, valleylands, wildlife habitat and areas of natural and scientific interest (ANSIs) in southern Ontario. While rare habitats can be included within these areas, this occurs on an individual basis – for example when an alvar is included within an ANSI or significant wildlife habitat, and only when efforts have been made to make those determinations.

Coastal dunes have some additional protection under the PPS because they can be considered a dynamic beach hazard – areas where it is unsafe to develop because of the risks from naturally occurring processes. The PPS prohibits development and site alteration in dynamic beach hazards, with a few exceptions, and directs development away from hazardous lands adjacent to dynamic beach hazards. Conservation authorities also regulate development on hazardous lands, such as coastal dunes, to confirm that the control of dynamic beaches is not affected.

MNR can also provide protection of some rare habitats if the area is a species at risk habitat under the *Endangered Species Act, 2007* or is regulated as a provincial park or conservation reserve. For example, in August 2012, MNR established a new provincial park within the Carden Plain to protect at least nine types of globally significant alvar communities. However, this approach to protection occurs only on an individual basis, and is severely limited by the extent of privately-held lands in southern Ontario.

### *Stewardship and Land Securement*

Stewardship and land securement programs encourage private landowners to voluntarily protect, restore or enhance environmentally significant areas on their land. In southern Ontario where the majority of land is privately owned, this is vitally important for rare habitat protection.

There are several stewardship and land securement programs facilitated by government agencies and non-government agencies across southern Ontario that landowners can use to protect or enhance rare habitats. For example the Grassland Habitat Farm Incentive Program provides cost-share funding for farmers to implement best management practices – such as pasture improvements, improved grazing systems, marginal land retirement and forage harvest management – to provide and protect grassland habitats. The Natural Spaces Land Acquisition and Stewardship Program, administered by the Ontario Heritage Trust, matches funds from conservation bodies (such as conservation authorities, municipalities and environmental organizations that are registered as a charity) to acquire property in southern Ontario that would contribute to the long-term conservation and protection of provincially significant natural areas. Regrettably, government funding for these types of programs has decreased or been discontinued in recent years. For example, MNR ended its funding of the Land Securement Program and the Ontario Stewardship program in 2011 and 2012, respectively. (For more information on stewardship and land securement, see box entitled "The Beginning of the End of Stewardship?")

## ECO COMMENT

Tallgrass communities, coastal dunes and alvars are native, ecologically significant areas in Ontario. These rare ecosystems deserve the same, if not a higher, level of protection as afforded to other types of natural areas, such as woodlands and wetlands. However, the Ontario government has essentially forgotten about these rare habitats in its policies to protect natural spaces.

Significant loss, fragmentation and degradation of rare habitats have occurred in Ontario since pre-settlement times. The government's first priority for tallgrass communities, coastal dunes and alvar habitats should be to protect what remains on the landscape. Its second priority should be to encourage the restoration, enlargement, and connection of remnant areas, where appropriate. Finally, it should encourage management actions on both Crown and private land that maintain or restore the ecological integrity of rare habitats, such as the use of prescribed burns in tallgrass communities.

While some protections exist for rare habitats when they are included within other features, such as endangered species habitat, ANSIs or provincial parks, this occurs only on a case-by-case basis. Additionally, rare habitats are afforded more protection within the Greenbelt than the rest of the province; while laudable, it underscores that these rare ecosystems are given haphazard attention. The ECO believes that the PPS should explicitly provide protection for all types of rare ecosystems, such as native tallgrass communities, coastal dunes and alvars.

The provincial government has achieved some success in protecting rare habitats as provincial parks, such as with the prairie and dune ecosystems found in Rondeau Provincial Park. The ECO is pleased that MNR established the new Carden Alvar Provincial Park, thereby protecting some Carden Plain alvars from damaging land uses, such as aggregate extraction. Unfortunately, regulating rare habitats as provincial parks is an exception to the norm, as many rare habitats occur on private land.

Stewardship and land securement programs are important to ensuring the protection of tallgrass communities, coastal dunes and alvars on Ontario's landscape. The ECO is pleased that in 2012 the provincial government introduced the Grassland Habitat Farm Incentive Program. However, in times of economic slowdown, the provincial government may be tempted to severely reduce or completely end funding of these types of programs. The ECO is troubled by MNR's reduction or complete removal of funding for many successful stewardship and land securement programs. To fulfil the government's own commitment to conserve Ontario's biodiversity, the ECO strongly encourages MNR to continue supporting stewardship and land securement programs aimed at protecting and restoring rare habitats on private lands.

*For ministry comments, please see Appendix C.*

### 3.3.1 The Beginning of the End of Stewardship?

Stewardship programs provide funding for individuals or groups to voluntarily undertake projects, like tree planting or habitat restoration. With most of the land in southern Ontario held in private ownership, the government's engagement of landowners, farmers, schools, Aboriginal communities, businesses and conservation organizations in environmental stewardship projects can play a significant role in helping to sustain and restore native ecosystems. While the provincial government has introduced new stewardship programs in recent years, such as the Species at Risk Stewardship Program and the Great Lakes Guardian Community Fund, the ECO has noticed a significant reduction or complete elimination of funding for some long-standing and successful programs.

Land acquisitions and easements are crucial tools used to protect important natural areas on private lands. The Ministry of Natural Resources' (MNR's) Land Securement Program, which ran from April 2006 to March 2011, granted $23 million to partner agencies (such as the Nature Conservancy of Canada and Ducks Unlimited Canada) to help secure 13,742 hectares of conservation land in Ontario. Unfortunately, MNR is no longer providing financial assistance through the Land Securement Program. In another example, the provincial government provided $6 million for the Natural Spaces Land Acquisition and Stewardship Program in 2005, administered by the Ontario Heritage Trust, but to date it has not provided any additional funding. While MNR periodically uses resources from the Ontario Parks Capital Fund to acquire land for the expansion of provincial parks, the future outlook of government-funded land acquisition programs appears bleak.

MNR created the Ontario Stewardship program 16 years ago to protect and restore Ontario's natural resources through community support and engagement on local stewardship councils. As part of its three-year transformation plan announced in the provincial budget in spring 2012, MNR ended the Ontario Stewardship program and funding for local stewardship councils. While councils may be eligible for financial support through other ministry programs, the ministry eliminated 45 Stewardship Co-ordinator positions dedicated to support these councils. In their place, MNR created 25 new district Partnership Specialist positions to work with a variety of groups to focus on MNR's core business and provincial initiatives (for more information on MNR's transformation plan, see Part 2.1 of this Annual Report). Without funding from MNR, the future of stewardship councils remains uncertain; some councils may continue as is; some may amalgamate with nearby councils or other agencies (e.g., conservation authorities or municipalities); and others may cease to function entirely.

MNR stated that it remains committed to environmental stewardship and will continue to support community-based stewardship activities through targeted grants, property tax incentives and youth employment programs. In March 2013, MNR announced the creation of two new programs, the Land Stewardship and Habitat Restoration Program and the Community Hatchery Program, to replace the long-standing Community Fisheries and Wildlife Involvement Program (CFWIP). However, annual funding is considerably less than in previous years; in 2005/2006, CFWIP received $1 million in funding, whereas only $550,000 will be available for projects each year for the two new stewardship programs combined.

The ECO cannot help but wonder if this is the beginning of the end for provincial stewardship programs in Ontario. Given the importance of stewardship projects to Ontario's lands, waters and biodiversity, we certainly hope not.

## 3.4 Who Hunts Snapping Turtles?

Worldwide, reptile populations are declining at an alarming rate. Turtles are hunted at every stage of their life for eggs, meat, pets or shells. In Ontario, all native turtle species are protected from hunting except the snapping turtle (*Chelydra serpentine*), which is classified as a species of special concern under the *Endangered Species Act, 2007* (*ESA*). MNR allows recreational hunting of snapping turtles.

The common snapping turtle has a large range across southern Ontario. While its abundance is unknown, it is likely in decline. The Ministry of Natural Resources (MNR) does not actively collect population data for snapping turtles. Instead, it monitors the species' distribution through sightings input into MNR's Natural Heritage Information Centre. However, this information is incidental and estimates of abundance are anecdotal.

In June 2012, MNR introduced a requirement for individuals who recreationally hunt snapping turtles to report all harvest activities on an annual basis to the ministry. Previously, MNR did not regularly monitor or collect data on the hunt of snapping turtles.

A recreational fishing licence is required to catch and kill snapping turtles in Ontario for personal consumption. The snapping turtle season is open from July 15 to September 15 in central and southern Ontario and is open year-round in northern Ontario. MNR permits licensed individuals to kill two snapping turtles daily, with a total possession limit of five turtles. Hunting snapping turtles in provincial parks and Crown game preserves is not permitted. Unfortunately, illegal hunting of turtles for pets and as a food source (e.g., turtle soup) is an ongoing issue in Ontario and worldwide.

### A Species of Special Concern

The *ESA* defines a species as special concern "if it lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered because of a combination of biological characteristics and identified threats." Threats to the snapping turtles' survival include unsustainable levels of hunting, road mortality, habitat loss (e.g., from urban development and dredging of ponds, lakes, agricultural drains and stormwater management facilities), and pollution-induced reproductive problems. Unlike extirpated, endangered and threatened species, the *ESA* does not protect species of special concern from being killed, harmed or captured, nor does the Act protect their habitat.

Due to their late maturity and the low survival rate of their young, even a small reduction in adult snapping turtles can dramatically reduce a local population. In December 2010, the ECO received an application for review under the *Environmental Bill of Rights, 1993* requesting that MNR de-list snapping turtles as a game reptile in the hunting regulation (O. Reg. 665/98) under the *Fish and Wildlife Conservation Act, 1997* (*FWCA*), thereby ending the recreational hunt. MNR denied the application in February 2011, stating that it intends to develop a management plan under the *ESA* for snapping turtles by September 2014, and that there was low risk of harm to turtles by not conducting a review prior to completing the management plan. In response, the ECO stated that MNR should impose a moratorium on the hunting of snapping turtles until it is demonstrated that any harvest is biologically sustainable (for more information, see Part 3.2.1 our 2010/2011 Annual Report).

Two days after MNR denied the application for review, the snapping turtle was listed as a species of special concern under the federal *Species at Risk Act* and, therefore, a draft federal management plan is required by February 2014. As a result, MNR is no longer required to prepare a provincial management plan or government response statement for snapping turtles under the *ESA*. Instead, MNR will provide input into the development of the federal plan and assess whether the federal plan meets the needs of snapping turtle conservation in Ontario or if additional management direction is required.

In February 2012, a petition with 11,000 signatures was presented to the Legislative Assembly of Ontario asking the provincial government to end the recreational hunt of snapping turtles. In June 2012, MNR instead decided to amend the hunting regulation under the *FWCA* to require annual reporting of the recreational hunt of snapping turtles as a preliminary step in collecting information and supporting future management decisions. Individuals who kill or capture one or more snapping turtles are now required to submit annual hunting information to MNR by January

14 of each year through submission of a questionnaire. For the 2012 calendar year, the ministry received reports from just four people who killed a total of 13 snapping turtles in the province.

While harvest reporting is mandatory, it is unclear how or if MNR will enforce it. In a similar, long-standing, mandatory reporting process for black bears, only 63 per cent of resident hunters were in compliance in 2008. Adding a further challenge, a specific permit or tag is not required to hunt snapping turtles; a generic recreational fishing licence is required, and the ministry does not know how many of the 1.43 million anglers in Ontario that hold a recreational fishing licence target snapping turtles. This means that MNR will not be able to determine compliance rates and, consequently, the accuracy of the reported information. As a result, it is questionable how useful this information will be in terms of managing the species, particularly without population data.

In our Special Report, The Last Line of Defence: A Review of Ontario's New Protections for Species at Risk (2009), the ECO cautioned that species of special concern may not receive the necessary management and attention when there is no legal trigger to prepare a provincial management plan or formal government response. The ECO recommended that the *ESA* be amended to require government responses for all species of special concern.

## IMPLICATIONS OF THE DECISION

### Continued Snapping Turtle Hunt

MNR will continue to allow the hunting of snapping turtles for personal use, in accordance with seasons and catch limits outlined in the hunting regulations, despite the very low number of individuals who reported participating in the hunt. The continued hunting of adult snapping turtles in Ontario likely will have long-term negative effects on the population. Ontario scientists have found that adult snapping turtles cannot be taken sustainably without artificially supplementing hatchling and juvenile turtles, a program that would cost far more than any economic returns. They have, therefore, recommended that northern populations be afforded complete protection from exploitation.

## PUBLIC CONSULTATION AND THE EBR PROCESS

On April 10, 2012, MNR posted a proposal to amend O. Reg. 665/98 on the Environmental Registry for a 30-day public comment period. The ministry received 409 comments on its proposal to require mandatory reporting for snapping turtle harvesting. Nearly all of the commenters encouraged MNR to ban or place a moratorium on the harvest of snapping turtles in the province. While some commenters supported monitoring the harvest of snapping turtles, many expressed concern that MNR's methods will underestimate the actual number of turtles hunted and suggested that MNR should determine snapping turtle population estimates and trends in Ontario. However, MNR made no amendments to the proposal.

## ECO COMMENT

MNR's management of the snapping turtle hunt and its harvest monitoring program are flawed. The results from the program's first year indicate either that MNR is maintaining a recreational hunt of snapping turtles for only four people or compliance with the requirement to report harvest is incredibly low. In wildlife management, both population and harvest data are required to determine what amount of hunting is "sustainable" – for snapping turtles in Ontario, this vital information is deficient. MNR does not actively monitor the snapping turtle population or collect information on population trends. Given the low response rate for the snapping turtle harvest monitoring program and based on the track record of similar ministry programs, MNR could significantly underestimate the number of turtles killed each year. Moreover, there is overwhelming support for an outright ban on the recreational hunt of snapping turtles and available scientific research concludes that snapping turtle populations cannot withstand the removal of even a small number of breeding adults. Despite these factors, MNR illogically continues to allow a recreational hunt of this species of special concern. The ECO believes that MNR should immediately close the recreational hunting season for snapping turtles and permanently remove it from the list of game reptiles. The ECO also believes that MNR should conduct long-term provincial population monitoring of this species to better inform management decisions.

The designation of a species as being of special concern – such as the snapping turtle – is a warning sign and some action, beyond the status quo, should be undertaken to prevent its further imperilment. The ECO believes that MNR's wait-and-see approach until a federal management plan is prepared for snapping turtles is simply unacceptable. In cases such as this, where MNR is not required to ensure the preparation of a provincial management plan, a species of special concern may not receive crucial management and attention by the Government of Ontario. Therefore, the ECO strongly urges MNR to prepare and publicly consult on a government response to the federal management plan. This response should clearly articulate its specific conservation priorities and actions to address the many threats snapping turtles face, such as road mortality, hunting and habitat loss.

*For a more detailed review of this decision, please refer to Section 1.14 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

# 4 DEVELOPING ENVIRONMENTAL POLICY

Government policies are the positions, plans and principles that guide government decisions and actions. Clear and transparent policies can enhance program delivery, as well as increase public understanding and acceptance of government actions. Policies can range from very high-level, broad direction, to more focused operational guidance, to even more pointed technical guidance for a specific program area. Government policy may be formally adopted into legislation or regulations, or may be reflected in less formal documents, like guidelines, best practices or other policy documents.

People expect government to develop policies to address environmental issues that face their communities and the province as a whole. Developing sound policy generally involves research, data collection, analysis, consultation with stakeholders and the broader public, and synthesis of information to produce a plan of action. Without government policies that embrace all of these elements, public servants lack the roadmaps to effectively do their jobs, businesses lack certainty, and ultimately the environment lacks the protection it needs.

In this part of the Annual Report, the ECO reports on several areas where the province has made progress developing new policy, such as the Ministry of Natural Resources' newly developed invasive species strategy and the Ministry of the Environment's new approval regime for ground-source heating systems. Conversely, the ECO also highlights several areas where the province is failing to develop the necessary policy: for example, the lack of up-to-date management direction for Ontario's protected areas, the absence of policy for the conservation of polar bears and lake sturgeon, and the reluctance of government to develop proactive policies to address the unique environmental issues arising from shale gas extraction.

## 4.1 Ontario Government Plan to Conserve Biodiversity

In December 2012, the Ministry of Natural Resources (MNR) finalized Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity 2012-2020 (the "Government Plan"). This document represents the government's second plan for biodiversity. The first plan, Protecting What Sustains Us: Ontario's Biodiversity Strategy (2005), expired in 2010.

Biological diversity, or biodiversity, can be understood as the variety of life on Earth. It is the variability of native species and the wealth of ecological systems that form the layer of life around our planet. Ontario's biodiversity is inextricably linked with the quality of the air we breathe, the water we drink, the lands on which we grow our food, and the environmental services that support our natural resources and livelihoods. There is scientific consensus that the world's species, and the ecosystems on which they depend, are being threatened on a global scale.

The loss of biodiversity directly affects Ontario. The most significant threats to biodiversity both globally and in our province are habitat loss, climate change, invasive species, overexploitation and pollution. The State of Ontario's Biodiversity 2010 concluded that the provincial government's efforts to conserve biodiversity have increased over the last decade, but they have been insufficient to prevent its continued loss.

In 2010, almost every country on the planet met in Nagoya, Japan, to set a path forward as signatories to the Convention on Biological Diversity. As a result, the international community committed to 20 biodiversity conservation targets (the Aichi Biodiversity Targets) that are to be achieved by 2020. Canada's obligations under the Convention fall squarely on the shoulders of the provinces and territories.

The Ontario Biodiversity Council (OBC), a group of volunteers from conservation organizations and industry associations, finalized its own Ontario's Biodiversity Strategy, 2011 (the "OBC Strategy") in June 2011. The OBC Strategy defines three primary goals: to mainstream biodiversity; to protect, restore and recover Ontario's genetic, species and ecosystem diversity; and to use Ontario's biological assets sustainably. This non-government body states it will monitor and report on progress every five years, using the 15 biodiversity targets set out in its strategy. To be clear, unlike MNR's 2005 strategy, the 2011 OBC Strategy was not developed by the government – but instead, by this third party group of stakeholders.

In January 2012, the ECO released a Special Report to the Ontario Legislature, Biodiversity: A Nation's Commitment, An Obligation for Ontario. The ECO called on the Ontario government to develop its own strategic plan of action to conserve, protect and recover our province's biodiversity.

In December 2012, MNR released the Government Plan to conserve biodiversity. The ministry states that the Plan "includes a comprehensive suite of actions to ensure that biodiversity conservation is well integrated into decision making" and that it represents the "implementation plan" for the OBC Strategy.

The Government Plan outlines 24 government actions and 115 specific supporting activities that will be undertaken or are underway to conserve biodiversity in Ontario, and identifies the ministries that will take the lead and support these activities. MNR states that, in most cases, the 24 primary actions were adapted from the OBC Strategy to reflect the mandate of the Ontario government. Supporting activities include: implementing specific biodiversity-related statutes; integrating biodiversity consideration into existing policies or laws; supporting existing programs that currently contribute to biodiversity conservation or monitoring; and working with partners in furthering biodiversity research education and outreach.

The Plan states that the government "is committed to supporting the Ontario Biodiversity Council in monitoring and reporting to the public the results of Ontario's collective efforts

towards achieving the vision, goals and targets outlined in Ontario's Biodiversity Strategy, 2011." The term of the Government Plan is 2012 to 2020. No timelines are set for the Plan's renewal after this date.

## Broad Government Responsibility for Biodiversity

MNR notes that "the effective conservation of Ontario's biodiversity goes far beyond the mandate of any one ministry. It requires a province-wide strategy and action plan that applies across government." Accordingly, the Government Plan outlines the mandates and roles for 16 ministries. Some ministries, such as MNR and the Ministry of the Environment have clear roles in biodiversity conservation and explicitly acknowledge their responsibilities; other ministries included in the Government Plan are much less clear about their roles. For example, the Ministry of Northern Development and Mines (MNDM) states that it "works with partner ministries to support sustainable development and promote environmental leadership," and that it "promotes a balance of environmental, social and economic interests in land use planning decisions," but falls short of making a clear statement of responsibility for biodiversity conservation.

The Government Plan notes that the 2011 OBC Strategy supports and complements international commitments, including helping with Canada's obligations to meet the Aichi Biodiversity Targets. However, the Government Plan does not explicitly take responsibility for meeting the Aichi Biodiversity Targets.

## Vague Actions and Activities to Conserve Biodiversity

The Plan's identification of lead and supporting ministries for each of its 115 specific supporting activities creates some measure of public accountability for completing these activities. However, the vagueness of most promised actions in the Plan seriously diminishes the public's ability to hold the ministries accountable. Moreover, each ministry is left to establish its own deliverables for individual activities and determine timelines for their completion, as well as how these timelines will be communicated. As a result, the public lacks any assurance of the timely implementation or completion of conservation actions.

Furthermore, many of the programs included in the commitments by the ministries are already in place or are underway. As such, it may be difficult to identify the on-the-ground results of specific actions for biodiversity conservation. In particular, it will be difficult, if not impossible, to identify and evaluate program results where baseline monitoring has not been undertaken prior to the programs being initiated.

## Weak Commitment to Long-Term Monitoring of Biodiversity Indicators

The Government Plan commits to "[e]stablish a long-term biodiversity monitoring system." No such comprehensive monitoring system exists now. Specific supporting activities for this action include: "[b]uilding on existing programs, develop an integrated, broad-scale monitoring program for all aspects of Ontario's biodiversity" in addition to supporting existing programs, such as the Ontario Benthos Biomonitoring Network, the Ontario Forest Biomonitoring Network, the Carbon Flux Monitoring Program, the Ontario Geological Survey, and the Surface Water Monitoring Centre.

The inclusion of a monitoring system as one of the 24 main actions in the Government Plan signals a commitment by government to move forward with a broad-scale biodiversity monitoring program for the province. However, it is unclear whether the monitoring program to be established will be more than a collection of the data already being gathered through current programs, which would be grossly insufficient for the task at hand.

## No Assessment of the Plan's Effectiveness

MNR states that the government "is committed to supporting the Ontario Biodiversity Council in monitoring and reporting to the public the results of Ontario's collective efforts towards achieving the vision, goals and targets outlined in Ontario's Biodiversity Strategy, 2011." In other words, MNR will support this third party in tracking its own targets, but the government doesn't have a way for measuring the effectiveness of its activities outlined in the Government Plan.

The actions and activities outlined in the Government Plan do not necessarily align with the targets set by the Ontario Biodiversity Council. For example, a number of actions in the Government Plan are not reflected in the OBC's targets; this includes actions to: "promote water conservation;" "promote consideration of genetic diversity in policy development and decision making;" "promote and support the development of urban biodiversity and green infrastructure strategies;" and "develop economic tools that encourage biodiversity conservation." Therefore, despite the best efforts of the Biodiversity Council to monitor progress towards its own targets, its monitoring results will not necessarily reflect the progress towards all the government's targets.

TABLE 4.1.1.

A Comparison of Some Previous Recommendations of the Environmental Commissioner of Ontario (ECO) and their Integration into the 2012 Government Plan

| Criteria for Successful Plan | 2012 Government Plan |
|---|---|
| 1. Government taking responsibility for biodiversity | Yes |
| 2. Leadership and co-ordination by the Ministry of Natural Resources | Yes |
| 3. Involvement of all relevant ministries | Yes |
| 4. Real action promised by government (i.e., not just third parties) | To be determined |
| 5. Targets and timelines for action | No |
| 6. Long-term biodiversity monitoring | To be determined |
| 7. Explicit use of the 2020 Aichi Biodiversity Targets | No |

## ECO COMMENT

Conserving biodiversity is one of the most pressing issues of our time. Biodiversity is intertwined with virtually every facet of the well-being of our society – the health of our forests and waters, the production of our food, climate change adaptation and, ultimately, the functioning of our economy. To cast biodiversity conservation as an environmental issue alone is to marginalize its gravity. How we address this global crisis – and tackle its many challenges right here in Ontario – will either be judged with pride or shame by future generations. The Ontario government now has a choice: it can either treat its commitments in its biodiversity plan seriously or they can be quickly forgotten as empty rhetoric. The next few years will tell which path the government picks.

The role of the Ontario government in conserving the province's biodiversity cannot be overstated; the public has tasked it with the responsibility to lead and to ensure that the necessary resources are allocated. There are real costs because of the loss of biodiversity; these costs will mount unless the Ontario government acts decisively.

The ECO is pleased that the government has finalized a new plan for biodiversity conservation in Ontario. MNR staff should be commended for its efforts in bringing together 16 ministries to commit to specific actions and activities that, in principle, will help to conserve Ontario's biodiversity.

The ECO is extremely concerned, however, about the lack of specific targets and timelines for the completion of the actions and supporting activities in the Plan. Although it may make practical sense for each of the ministries to determine their own timelines, these should be publicly available, in a single location, for the purposes of transparency and efficacy of the Government Plan as a whole. In the absence of a co-ordinated approach to monitoring implementation and completion of the actions and activities, the ECO will at regular intervals leading up to 2020 request that ministries account for their priorities and real achievements under the Government Plan.

The ECO is very troubled that the government has not included any way to measure the effectiveness of its plan over the long term. Instead, MNR is relying on the Ontario Biodiversity Council's assessments – of its own targets from its own strategy – in the hopes that it will provide a proxy for the measuring of the effectiveness of the Government Plan. The ECO believes that the government's downloading of this crucial responsibility to a third party is wholly inappropriate and represents a potentially fatal backward step in meeting the 2020 Aichi Biodiversity Targets. In effect, the government likely will continue to use this collection of stakeholders as a shield to obfuscate and avoid any direct responsibility for biodiversity conservation in Ontario.

Although the ECO is heartened that the Government Plan makes reference to the establishment of a long-term biodiversity monitoring program, the ECO reiterates its recommendation from four years ago: the government needs to establish a statutory responsibility for monitoring and reporting on the state of the province's biodiversity. There is currently no law in Ontario that obligates the government to monitor biodiversity across the province. A statutory responsibility for biodiversity monitoring would provide critical information to inform implementation of laws and policies throughout government. Without such information, government decisions will be ill-informed at best, subject to much criticism, and could undermine public support for actions that are taken.

**RECOMMENDATION 5**

*The ECO recommends that each of the 16 ministries under the Ontario Government Plan to Conserve Biodiversity develop an implementation plan by 2014.*

*For a more detailed review of this decision, please refer to Section 1.15 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 4.2 Stopping the Spread: Invasive Species Plan

Invasive species are non-native (or "alien") plants, animals and even micro-organisms whose introduction or spread can threaten the environment, human health and the economy. They can be extremely difficult and costly to control and, if unchecked, can inflict significant and irreversible ecological impacts (see pp. 47-52 of the ECO's 2003/2004 Annual Report). For example, in Ontario:

- The emerald ash borer (*Agrilus planipennis*) has killed over one million trees in the southwest.
- Invasive *Phragmites* (*the European common reed*) has caused significant habitat loss for several wetland-dependent species.
- Zebra mussels (*Dreissena polymorpha*) have restructured nearshore ecosystems, displaced native mussels and clogged intake structures in power stations and water purification plants, costing millions of dollars in increased operating costs.

Other invasive threats, including Asian carp (several species of cyprinid fish) and chronic wasting disease (a degenerative brain disease that affects deer, elk, moose and potentially woodland caribou) also have the potential to cause major harm if they become established in Ontario.

A variety of approaches have been developed to address invasive species in Ontario. Since 1992, the Ministry of Natural Resources (MNR) has partnered with the Ontario Federation of Anglers and Hunters to deliver the province-wide Invading Species Awareness Program to educate the public about invading species, address key pathways contributing to their introduction and spread, and facilitate monitoring and tracking initiatives.

Despite some isolated successes, however, addressing invasive species remains a significant and complicated problem, involving many different species, points of entry, means of dispersal, stakeholders, industries and levels of government. Accordingly, the ECO has been calling on the government for almost a decade to develop a provincial invasive species strategy. Although Ontario's Biodiversity Strategy (2005) included some provincial actions for implementing components of the federal government's An Invasive Alien Species Strategy for Canada (the "National Strategy"), it failed to delegate responsibilities to different ministries, set out timelines to accomplish objectives or establish measurable targets.

In July 2012, the government finally released a dedicated invasive species strategy. The development of the Ontario Invasive Species Strategic Plan (OISSP or the "Strategic Plan") was led by MNR, but also involved the Ministry of the Environment (MOE), Ministry of Transportation (MTO) and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA, as it was then known). The three objectives (or intended outcomes) of the OISSP are to: prevent new invaders from arriving and surviving in Ontario; slow and, where possible, reverse the spread of existing invaders; and reduce their harmful impacts. To meet these objectives, the OISSP is guided by four goals, which mirror those of the National Strategy:

1. Prevent harmful introductions before they occur.
2. Detect and identify invasive species before or immediately after they become established.
3. Respond rapidly to invasive species before they become established or spread.
4. Implement innovative management actions and take practical steps to protect against impacts of invasive species.

These four goals translate into 27 strategic actions and almost a hundred tactics (see examples in Table 4.2.1), grouped into six activity categories: leadership and co-ordination; legislation, regulation and policy; risk analysis; monitoring and science; management measures; and communication and education. The OISSP describes how the government intends to meet the goals of the National Strategy, as well as those of several national action plans, including A Canadian Action Plan to Address the Threat of Aquatic Invasive Species (2004), the Action Plan for Invasive Alien Terrestrial Plants and Plant Pests (2005), and Canada's National Wildlife Disease Strategy (2004).

TABLE 4.2.1.

Examples of Strategic Actions and Tactics Included in the Ontario Invasive Species Strategic Plan (2012)

| Activity Category | Strategic Action | Tactic |
|---|---|---|
| Leadership and Co-ordination | #2. Clarify roles and responsibilities of provincial ministries for invasive species issues. | OMAFRA will establish a clear contact as its lead on invasive agricultural species. |
| Legislation, Regulation and Policy | #7. Examine provincial legislative and policy framework for invasive species management. | Conduct a regulatory review of federal and provincial legislation to determine regulatory gaps and inconsistencies. |
| Monitoring and Science | #15. Improve existing invasive species monitoring programs, and develop a network of experts to identify species. | Investigate new technologies to inventory native and invasive species and detect hybridization. |
| Communication and Education | #27. Build communication networks with a wider range of interested communities and interest groups. | MNR will work to broaden partnerships with Ontario's Aboriginal communities. |

## IMPLICATIONS OF THE DECISION

### Potential to Reduce the Threats Caused by Invasive Species in Ontario

Previous efforts to address the threats caused by invasive species in Ontario were piecemeal and unco-ordinated. The province now has a comprehensive, logical and well-researched strategy dedicated to addressing this problem. Assuming that the OISSP's strategies and tactics are fully and effectively implemented, the Strategic Plan has the potential to help reduce the introduction, spread and impacts of invasive species.

## New Invasive Species Policies and Management Plans

Implementation of the Strategic Plan will require the government to develop and implement a variety of policies and plans, including best management practices, and management plans for priority invasive species. The development of these policies, plans and protocols will require public consultation via the Environmental Registry.

## Fulfillment of Other Commitments and Goals

In echoing the National Strategy's goals and strategies, implementation of the OISSP should help Ontario fulfil Canada's invasive species goals at the provincial level. Moreover, implementing the OISSP's actions and tactics should help Ontario meet the goals of other overarching plans and commitments, including the Ontario Government Plan to Conserve Biodiversity (2012), the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (2007), Climate Ready: Ontario's Adaptation Strategy and Action Plan (2011), and MNR's strategic directions.

## Reliance on the Canadian Government, Municipalities, and Other Stakeholders

While the majority of the tactics in the OISSP require tangible action by Ontario ministries, a few involve the government encouraging, working with and/or co-operating with the federal government, municipalities, or other players to do something (e.g., develop ballast water treatment standards, increase capacity for inspections and enforcement at Canada's borders and key ports of entry, etc.). Although integral to the Plan's overall success, the ultimate power for completing these tactics and meeting OISSP's underlying goals may be in the hands of some other authority.

## No Implementation Plan or Funding Strategy

The OISSP provides a good, clear description of the issues related to invasive species and a comprehensive analysis of what is needed to address them. However, the ECO has identified a number of structural deficiencies in the actions and tactics outlined in the Plan. Namely, they: are not species- or region-specific; generally do not identify the ministry or branch responsible; lack timelines for completion; fail to specify targets and indicators for measuring progress; and contain no public reporting requirements. The draft OISSP, posted on the Environmental Registry in 2011, included a commitment by MNR to co-ordinate the development of an annual implementation plan to identify and articulate priorities for implementation. Unfortunately, references to annual implementation plans are noticeably absent in the final Strategic Plan. What still need to be articulated, then, are the details that likely would have appeared in an implementation plan: species-specific actions; responsible branches/actors within ministries; deadlines for completion; and targets and indicators to measure progress. The OISSP also lacks a clear timeframe and an indication as to when it will be reviewed, as well as any strategic actions to ensure funding for its implementation.

# ECO COMMENT

The ECO applauds MNR, OMAFRA, MOE and MTO for collaborating to develop a comprehensive invasive species strategy for the province. The Strategic Plan provides a logical and thoughtful framework for preventing, responding to and managing invasive species in Ontario.

Nevertheless, the Strategic Plan lacks the specifics necessary to instil confidence that all of the responsible players will do what is required to ensure success. While the ECO agrees with

MNR that the OISSP provides a "conceptual framework for tackling Ontario's invasive species problem," the ECO does not believe that it includes a "detailed action plan designed to ensure progress toward specific outcomes." The ECO is disappointed that the government decided to remove from the Strategic Plan the commitment to develop annual implementation plans. The ministry's explanation as to why this commitment was removed reads as follows:

> [MNR] recognized that a more efficient model was for planning to occur through regularized annual work planning and priority setting exercises. MNR will help to facilitate these discussions in collaboration with the other ministries. This will enable ministries to use business systems already in place to establish implementation priorities, reflective of needs, resources, partnership opportunities and respond to ever-emerging invasive species issues.

The ECO is not convinced by this argument and urges the government to revisit its original intention. Committing to the development of a detailed and publicly available annual implementation plan will increase the likelihood that the goals, actions and tactics outlined in the OISSP are promptly implemented and consistently employed. Furthermore, it is important that the Strategic Plan include a commitment to, and a mechanism for, evaluating whether the implemented tactics are actually achieving the OISSP's intended goals and objectives (for more discussion about the evaluation of environmental programs, see Part 6.4 of the ECO's 2011/2012 Annual Report, Part 2).

Given the nature of some of the OISSP's tactics, the ECO is disappointed that the Strategic Plan seems to assign no responsibilities to the Ministry of Municipal Affairs and Housing (MMAH). For example, one tactic is to "encourage municipalities to include invasive species prevention measures within their official plans." Others relate to working with municipalities, for example, on policies and practices to reduce disturbance in natural areas and natural corridors, and to develop and implement invasive species best management practices for municipal planning documents and zoning. Because these tactics relate to municipal land use planning – something clearly within the mandate of MMAH – the ministry should have been involved in developing the OISSP and should be jointly responsible for implementing it.

Finally, the ECO is concerned that the laudable goals of the Strategic Plan will go unfulfilled without adequate funding. The ECO has reported several times that MNR and MOE have limited finances, staff and expertise to effectively meet their mandates (see Part 2.3 of this Annual Report). MNR is moving forward with a plan to "modernize its business and operate on a more cost efficient basis" that involves cutting its budget, staff, partnership funding and facility locations over three years (for more information, see Part 2.1 of this Annual Report). There is clearly a need to secure funding to ensure the effective implementation of the OISSP. Equally important, funding is needed for other partners (e.g., conservation authorities, municipalities, etc.) to fulfil some of the OISSP's strategic actions. Dedicating adequate dollars to preventing the introduction and spread of invasive species would be a wise investment, potentially averting the risks and financial costs associated with invasive species that we have seen with previous introductions.

Other jurisdictions have made funding provisions an integral part of their invasive species strategies. For example, one of the five key actions of the Invasive Species Strategy for British Columbia (BC) is to "develop a long-term funding strategy for invasive species management in BC that includes baseline funding targets and possible funding mechanisms." The BC strategy also suggests that "new funding mechanisms should include approaches that are both universal (applicable to all British Columbians) and targeted (linked to special interests, such as key pathways of introduction and spread)." The ECO is disappointed that no comparable actions are included in Ontario's Strategic Plan. If the plan is to be more than a well-meaning but empty gesture, it is incumbent on the government to develop and implement the means to finance the long-term prevention, detection, and management of invasive species threats.

The OISSP itself may be a comprehensive, logical and thoughtful strategy. However, it provides no details as to how, when and by whom species-specific tactics will be implemented, no articulation of how progress and efficacy will be evaluated, and no indication how funding for implementation will be secured. As a result, the government's commitment to addressing this complex and significant issue may be sincere, but ultimately unachievable.

*For a more detailed review of this decision, please refer to Section 1.9 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 4.3 Neglected Obligations: No Conservation Planning for Polar Bears

The Ministry of Natural Resources (MNR) was required under the *Endangered Species Act, 2007* (*ESA*) to publish a government response statement by September 7, 2012, outlining the actions the Government of Ontario would take to protect and recover polar bears. MNR failed to complete this plan for polar bear conservation.

### Polar Bears in Ontario

Polar bears (*Ursus maritimus*) are an icon of Canada's arctic and wildlife heritage. Polar bears are also seen as an important indicator of the effects of climate change in Ontario's Far North. Canada is home to 13 of the world's 19 subpopulations of polar bear. The two subpopulations in Ontario are the most southern breeding in the world: (1) a small portion of the western Hudson Bay subpopulation, which ranges largely in Manitoba; and (2) the southern Hudson Bay subpopulation, which ranges in Ontario, Quebec and Nunavut.

Although the southern Hudson Bay subpopulation in Ontario has remained relatively stable over the last 20 years, recent reports of declining body condition and survival rates have raised significant concerns about the future of the subpopulation. Projected population declines conclude that there is a high probability the species will be extirpated from Hudson Bay within 45 years due to climate change. The effects on this species will likely include: reduction of mating and feeding habitat due to loss of sea ice; loss of maternal den sites in terrestrial habitats; and loss of prey species. (For more on Ontario's polar bears and other marine mammals, see Chapter 2.9 of the ECO's 2011/2012 Annual Report, Part 2.)

Overharvesting can serve as an additional threat to a population that is already under stress or in decline. The International Union for Conservation of Nature (IUCN) Polar Bear Specialist Group estimates that, on average, 48 bears have been hunted and killed per year from the southern Hudson Bay subpopulation (inclusive of Ontario, Quebec and Nunavut) each year over the last 10 years. MNR estimates that the Ontario portion of this harvest has been an average of eight bears per year since the 1990s. However, in 2011, 104 bears were killed from the southern Hudson Bay population alone – which represents a substantial portion of a subpopulation estimated at only 900 bears. The significant increase in hunted bears prompted the governments of Nunavut, Ontario and Quebec (along with Inuit and wildlife management organizations) to voluntarily agree in 2012 to limit the overall annual harvest level of the subpopulation to 60 polar bears.

The polar bear has been regulated as a threatened species in Ontario under the *ESA* since September 10, 2009. The species is also considered to be globally vulnerable by the IUCN. The polar bear is a species of special concern under the federal *Species at Risk Act* and is designated as threatened under the United States' *Endangered Species* Act. Canada has an obligation to protect and monitor polar bears under the 1973 multilateral Agreement on the Conservation of Polar Bears.

## IMPLICATIONS OF THE DECISION

MNR failed to meet the *ESA*'s timelines for polar bear recovery planning. First, the ministry was late in having the species' recovery strategy prepared. Then, MNR missed the legislated timeline to publish its government response statement for polar bears within nine months after the recovery strategy was prepared, stating it required "more extensive engagement" prior to developing the response. The ministry's delay will have a domino effect on later planning requirements: MNR expects it will be late in proposing a habitat regulation for polar bears; and the ministry's required five-year review of recovery progress will also be pushed back.

The purpose of government response statements is to summarize the actions that the Government of Ontario intends to take in response to science-based recovery strategies and its priorities with respect to taking those actions. Since there has been no such direction provided for polar bears, there is virtually total uncertainty as to what recovery activities can or should be undertaken by MNR, third-party organizations and First Nations in Ontario.

## ECO COMMENT

There is no doubt that polar bear conservation presents complex issues that warrant extensive consultation and discussion. However, the *ESA*'s intent is for government to move swiftly in order to prevent the further imperilment of Ontario's species at risk. The *ESA*'s requirements are reasonable: the Act explicitly specifies that government should consider feasibility, including social and economic factors, when determining the actions it will take to protect and recover species. The government's plans for protecting these threatened species – based on what it deems to be feasible – need to be put in writing and clearly articulated for the public. The government's failure to do so is unjustified.

Ontario is steward to the imperilled and globally significant polar bear populations. Immediate action is needed to prevent the extirpation – the complete loss – of polar bears from the province within only a few decades. Complex problems, like polar bear conservation, require tough choices to be made: that is why we have a Ministry of Natural Resources that is entrusted with making decisions on how to best protect and recover species at risk. Ontario's conservation efforts, or lack thereof, attract international interest. To delay dealing with the problem will not make it go away – it will only make the situation worse for a species already in peril.

*For a more detailed review of this decision, please refer to Section 1.10 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

# 4.4 Stalling Progress: No Conservation Planning for Lake Sturgeon

The Ministry of Natural Resources (MNR) was required under the *Endangered Species Act, 2007* (*ESA*) to publish a government response statement in September 2012 outlining the actions the Government of Ontario will take to protect and recover lake sturgeon. In September 2012, MNR posted a decision notice on the Environmental Registry stating that it would be delaying this obligation.

## Lake Sturgeon in Ontario

Lake sturgeon (*Acipenser fulvescens*) is the largest freshwater fish species in Ontario. Lake sturgeon mature late in life and reproduce relatively infrequently; individuals born today will not mature until about 2030 and will spawn only every 5 to 9 years after that. Lake sturgeon are also very long-lived; the oldest individual ever caught in Ontario was reported to be over 150 years old. These attributes make lake sturgeon populations sensitive to disturbances.

There are three distinct populations of lake sturgeon in Ontario, each regulated under the *ESA* since September 10, 2009: the Great Lakes/Upper St. Lawrence River population (threatened), the northwestern Ontario population (threatened) and the southern Hudson Bay/James Bay population (special concern). Only the two threatened populations receive explicit protection under the *ESA* (i.e., prohibitions on harming or harassing individuals or damaging or destroying their habitat); however, fishing of the southern Hudson Bay/James Bay population is prohibited under Ontario's fishing regulations. MNR only permits catch and release fishing of this population.

Lake sturgeon experienced drastic population declines due to commercial fishing in the late 1800s and early 1900s. Sturgeon populations across Canada were severely depleted, and some extirpated, by the early part of the 20th century; most have never recovered. Commercial fishing for lake sturgeon was closed in three of Ontario's Great Lakes in the 1970s and closed in Lake Huron in 2009.

The habitat alteration and fragmentation associated with dam construction and operation is considered a significant threat to lake sturgeon. Hydro-electric stations and dams can impede migration to spawning grounds, cause sturgeon to be accidentally trapped or drawn into stations with water intake, and have negative effects on egg survival. Hydro-electric power currently makes up the bulk of Ontario's total renewable energy supply. The province's Long Term Energy Plan notes that more hydro-electric power capacity will be added to Ontario's electricity system in the next eight years than the total added over the previous 40 years, including small-scale projects. Other threats to lake sturgeon in Ontario include pollution, illegal fishing, species invasions and climate change.

## Recovery Measures Delayed

MNR has failed to meet each of the *ESA*'s timelines for lake sturgeon recovery planning. First, the ministry was late in having the species' recovery strategy prepared. Then, MNR missed its required timeline to publish its government response statement for lake sturgeon within nine months after the recovery strategy was prepared, stating it required "more extensive engagement" prior to developing the response. This delay will further postpone subsequent planning requirements, including MNR's habitat regulation for lake sturgeon, and the ministry's required five-year review of recovery progress.

## Failure to Establish Agreements with Waterpower Operators

The *ESA* prohibits harming or harassing threatened or endangered species, or damaging or destroying their habitat. However, O. Reg. 242/08 under the *ESA* provided operators of existing hydro-electric generating stations with a three-year general exemption from these *ESA* provisions if a threatened or endangered species was known to occur at the station, provided the waterpower operations met certain conditions. This general exemption expired with respect to lake sturgeon on September 10, 2012. For continued exemption from the requirement to obtain a permit under the *ESA* after this date, a hydro-electric generating station was required to enter into a species-specific agreement with the Minister of Natural Resources.

In July 2013, MNR advised the ECO that no such *ESA* agreements had ever been issued to hydro-electric operators addressing lake sturgeon. As a result, any hydro-electric generating station that was harming lake sturgeon or their habitat, and was operating without an approved agreement or permit, was in a state of non-compliance with the *ESA* as of September 2012.

## Reduced Scrutiny for Waterpower Operations

On May 31, 2013, MNR made significant amendments to O. Reg. 242/08. Under the revised regime, which took effect on July 1, 2013, hydro-electric operators no longer require an agreement with the Minister in order to harm or harass most species at risk, including lake sturgeon. Rather, they must register their activity and follow a set of rules prescribed in regulation.

These amendments reduce the level of ministry oversight of the impact of waterpower operations on lake sturgeon. Previously, O. Reg. 242/08 had required the Minister, prior to entering into an agreement, to be of the opinion that the operations would not jeopardize the survival or recovery of the species, and that the agreement would not conflict with the implementation of any action set out in the government response statement. The amendments removed this important condition.

Furthermore, until those hydro-electric stations that have negative impacts on lake sturgeon register their operations, these sites will continue to be in non-compliance with the *ESA*.

## ECO COMMENT

Timelines under the *ESA* are legal requirements. The ECO is extremely disappointed that MNR failed to meet required deadlines to publish its government response statement for lake sturgeon. The ministry's delays will have a domino effect on planning for lake sturgeon recovery, the net result being a delay in government action to protect and recover the species.

Lake sturgeon are harmed by some hydro-electric stations in Ontario. However, no agreements were signed with MNR in the three-year window, ending in September 2012, exempting facilities from the requirement to obtain a permit under the *ESA*. The recent regulatory amendments, in May 2013, lowered the exemption standard further by relieving facilities from any direct scrutiny by MNR, as operators are now only required to register their activity with the ministry. Combined with the lack of a government response statement, the result is that lake sturgeon have arguably received little, if any, protection under the *ESA*, let alone any tangible recovery action.

*For a more detailed review of this decision, please refer to Section 1.11 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 4.5 Missing Metrics: The Lake Simcoe Fish Community Objectives

Lake Simcoe is the largest lake in southern Ontario and the most intensively fished inland lake in the province. Over many years, a variety of external pressures have contributed to the deterioration of the lake's water quality and the collapse of its coldwater fish populations.

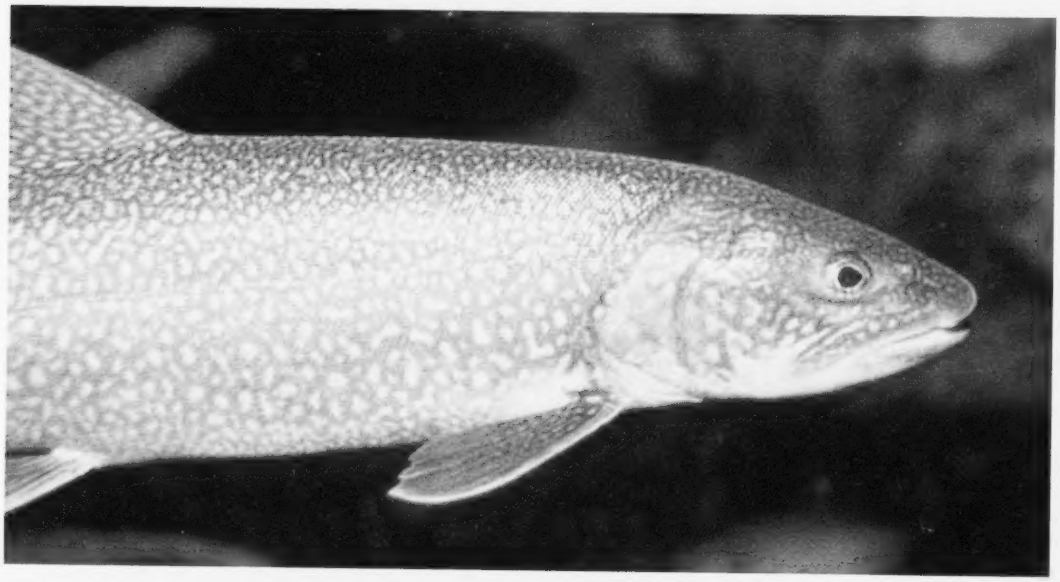
A concerted effort to restore Lake Simcoe's ecosystem and fish community has been underway since the mid-1980s. This process began with the implementation of the Lake Simcoe Environmental Management Strategy and, more recently, resulted in the *Lake Simcoe Protection Act, 2008* and the Lake Simcoe Protection Plan (LSPP), released in 2009. The LSPP directed the Ministry of Natural Resources (MNR) to develop fish community objectives for Lake Simcoe and its tributaries.

In September 2012, MNR released the Lake Simcoe Fish Community Objectives (the "Objectives"), which are intended to guide the management of the fish community and fisheries resources of Lake Simcoe, its tributaries and, where appropriate, Lake Couchiching. The Objectives will also be used to inform the planning, permitting and implementation of development activities in the Lake Simcoe watershed.

### Pressures on Lake Simcoe's Fish Community

Lake Simcoe's fish community comprises 52 species, which include coldwater, coolwater and warmwater fish. An additional 11 native fish species reside in the lake's greater watershed. The lake's tributaries are habitat for a diverse warmwater population and several coldwater species, and provide a critical link to spawning and nursery areas for many of the lake's fish.

Coldwater populations require cold, well-oxygenated water, as well as clean spawning shoals for reproduction. As a result they are particularly sensitive to poor water quality. The second half



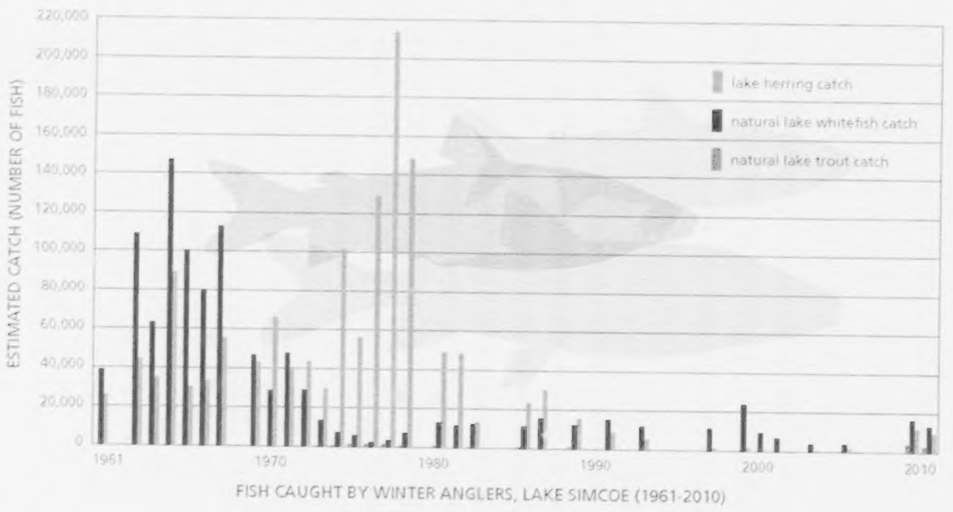


**FIGURE 4.5.1.**

Fish caught by winter anglers, Lake Simcoe (1961-2010). (Source: Ministry of the Environment.)

of the last century saw a collapse of the lake's coldwater populations, including lake trout, lake whitefish, lake herring and rainbow smelt. The decline in the health and abundance of these populations is the combined effect of many stressors, including excess nutrients, pollutants, pathogens, invasive species, climate change, land use changes, water extraction and other human pressures.

Although the lake herring fishery has been closed since 2001, lake trout and lake whitefish remain popular targets for anglers; MNR has maintained these fisheries through stocking programs. While recent observations of naturally reproducing lake trout are a hopeful sign, the population is still under threat.

The warmwater fish populations in the Lake Simcoe watershed have been relatively stable, despite the stress imposed by shoreline modification and habitat loss. The exception among this fairly resilient fish community is muskellunge (*Esox masquinongy*) – their abundance in the lake steeply declined in the 1930s. However, efforts are underway to restore the population through stocking and the year-round closure of the fishery.

The key stressor in Lake Simcoe is the increased nutrient load in the form of excess phosphorus. Although phosphorus is naturally present in the lake, the current levels are extremely high – approximately three times pre-settlement levels. Phosphorus can originate from natural sources (e.g., atmospheric deposition, weathering of rock, soil erosion, decay of organic material, etc.), but the elevated phosphorus levels in the lake are largely attributable to anthropogenic sources (e.g., agricultural runoff, sewage treatment plant discharge, septic systems, etc.).

Increased phosphorus results in accelerated aquatic plant and algae growth. As these masses of plants and algae die off, the decomposition process consumes the oxygen present in the lake, resulting in substantial decreases in oxygen concentrations in the deep, cold water habitat of the lake. Decreased oxygen levels inhibit the survival of coldwater species. Excess plant growth on spawning shoals may also impair the natural reproduction of these coldwater species, as eggs are unable to fall into protective crevices on shoals.

Invasive species have also disrupted the lake's ecological balance by altering natural food webs and excluding native species from their habitats. Once established, control of invasive species is extremely difficult; accordingly, preventing their introduction into the lake's ecosystem is critical.

In addition to these long-established stressors, climate change is a growing threat to Lake Simcoe's fish community. Already, earlier spring warming, earlier ice-outs, and earlier and extended lake stratification have been observed in Lake Simcoe; these effects may also result in further hypolimnetic oxygen depletion in deep waters. Climate change models project increases in air temperatures and altered precipitation patterns in the watershed. The resulting changes in water quantity and temperature in the lake and its tributaries are anticipated to cause major shifts in wildlife population levels and species distributions.

For example, it has been predicted that by 2100: the volume of suitable habitat for the lake's coldwater species may be reduced by 26 per cent; 89 per cent of wetlands in the watershed will be vulnerable to drying and shrinking; and stream temperatures in the watershed may increase by as much as 1.3°C, reducing the distribution of coldwater species in the watershed. Such changes may also put rare species in the Lake Simcoe watershed at an increased risk of extirpation; for example, redside dace (*Clinostomus elongates*) – listed as threatened under the *Endangered Species Act, 2007* – is considered to be extremely vulnerable to climate change.

Shifts in the abundance and diversity of species caused by climate change will likely affect the sustainable catch levels for the Lake Simcoe fishery. The viability of the ice fishery could also be affected as winters progressively become warmer and shorter.

In general, human activities in and around the lake have caused a wealth of problems in the watershed, including increasing burdens on water supply, loss of forest cover and natural areas, the spread of pathogens, and increased pollution. Over the past decade, the population within the watershed has grown substantially, and this growth is expected to continue. Although portions of the watershed are protected under the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan, areas not covered by these plans continue to experience intense development pressure.

## Fish Community Objectives

The LSPP directed MNR to develop Fish Community Objectives that focus on the fish communities of Lake Simcoe, but that also address the entire aquatic community in both the lake and its tributaries. The Plan also states that the Objectives will be used to increase resilience to future impacts of invasive species and climate change, and ensure sustainable resource use and social benefit. It should be noted that the LSPP also directed the Ministry of the Environment (MOE) to develop a climate change adaptation strategy for the Lake Simcoe watershed within two years (i.e., by 2011).

The Objectives establish an overarching Fish Community Goal that focuses on: socio-economic and cultural benefits; an ecological balance of self-sustaining native species; the protection and maintenance of habitats and biodiversity; and restoration of the fish community. In addition to this broader goal, specific objectives were formulated for: general management; the coldwater, warmwater and tributary communities and fisheries; and science and monitoring.

Highlights of the general management objectives include: management within the context of the lake's watershed ecosystem; restoring native extirpated and at-risk fish species; managing native, self-sustaining fish populations; preventing the introduction of new non-native species and diseases, and limiting existing impacts; and conserving, protecting and restoring habitat. There are also objectives that focus on maintaining, improving and promoting fishing opportunities.

The objectives for the coldwater fish community include: achieving a self-sustaining native coldwater fish community and fishery; ensuring that management actions do not disrupt the food web; and managing for sustainable harvests. In addition, the lake herring population will be managed as a forage base and, eventually, the recreational fishery will be re-opened, "when sustainable." Objectives for the warmwater fish community are primarily concerned with ensuring continued recreational opportunities for fishing both native and non-native species. The objectives for the tributary fish community are largely focused on the protection of tributary habitats, as well as the removal or modification of barriers to fish migration.

Finally, the objectives for science and monitoring include: the maintenance of long-term monitoring programs; continued research on the Lake Simcoe ecosystem; and continued collaboration within a multi-agency approach in collecting information.

## IMPLICATIONS OF THE DECISION

### Lack of Quantifiable Targets, Timelines and Indicators

The Objectives set out many goals; however, most lack the quantifiable targets, timelines or indicators needed to effectively guide decision making. MNR has essentially crafted general management guidelines instead of establishing tangible and measurable objectives, greatly reducing the potential for accomplishing the desired results.

For example, one of the objectives for the coldwater fish community is to "[e]ncourage and promote the natural reproduction of the native coldwater species of Lake Simcoe to achieve a self-sustaining coldwater fish community and fishery." This objective could be far more effective if it included a target and timeline – for instance, by aiming to maintain coldwater populations without the use of stocking by 2025.

### Failure to Address Climate Change Adaptation

One of the explicit purposes of the Objectives is to increase the resilience of Lake Simcoe's aquatic communities to climate change. Although MNR has previously investigated and reported on potential adaptation measures for the watershed, the ministry failed to develop a single objective specifically related to climate change adaptation.

### Emphasis on Continued and Expanded Fishing Opportunities

The Objectives seek to improve the health and viability of the lake's fish community, as well as maintain and improve current recreational fishing opportunities. Although there seems to be an emphasis on "sustainable harvest" rates, this concept is not defined by MNR, and there is little direction on how to prioritize competing ecological and recreational goals.

This ambiguity is particularly problematic with respect to MNR's stocking programs. For example, the Objectives contemplate re-opening the lake herring fishery "when sustainable." However, it is not clear whether this determination of "sustainability" will be made on the basis of a stocked or a naturally-reproducing population. This is a significant issue, as stocking fish can reduce the genetic diversity of a fish population and ultimately decrease its ability to adapt to environmental changes.

## ECO COMMENT

There are many serious challenges facing the Lake Simcoe fish community, and the development of the Objectives was an opportunity to create a clear roadmap to addressing them. No other comprehensive management tools exist for addressing these concerns, which makes MNR's failure to include any sort of performance metrics with the Objectives very troubling. Metrics (including timelines, indicators and quantifiable targets) are needed to guide the implementation of the Objectives and to measure their success over time. The ECO encourages MNR to provide stronger guidance by developing such metrics, which will support a practical, defensible and adaptive approach to managing Lake Simcoe's fish community. Achieving measurable objectives will also require the commitment of adequate resources.

The ECO is also disappointed by the lack of objectives that specifically relate to climate change adaptation, as explicitly directed under the LSPP. Adaptation objectives are necessary to help maintain Lake Simcoe's fish community, particularly its vulnerable coldwater populations, and to support the conservation of the watershed's vast biodiversity. This is particularly problematic in light of the fact that MOE has not completed the climate change adaptation strategy directed under the LSPP, which was required by 2011.

A robust ecological community supports a healthy fishery; however, these two goals can be at odds if recreational activities put undue pressure on the watershed ecosystem. Accordingly, MNR should put the health of the fish community ahead of the recreational fishery. In particular, the ministry should resolve any ambiguity or potential conflicts inherent in its own activities. For example, continuing to pursue angler-oriented stocking programs may work against MNR's efforts to restore a native, self-sustaining fish community. In this instance, MNR should clarify how it will determine sustainable catch levels for stocked species.

The threats posed to the lake's ecosystem are substantial and complex, and will almost certainly continue to increase. Clear objectives for guiding all fish management and watershed development activities, and metrics for assessing their success, are therefore critical – not only to create a powerful tool for the protection and restoration of Lake Simcoe's fish community, but also to provide a degree of accountability for those responsible for making management decisions. However, without the support of adequate resources, any commitments made by the Objectives will be nothing more than hollow promises.

**RECOMMENDATION 6**

*The ECO recommends that MNR develop timelines, indicators and quantifiable targets for the management of the Lake Simcoe fish community.*

*For a more detailed review of this decision, please refer to Section 1.13 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 4.6 Protected Areas Planning: A Lost Priority

In 2012, the Government of Ontario made a firm commitment to expand the province's system of protected areas as a way to conserve biodiversity. Setting aside lands for protection, however, is only the first step. The benefits that Ontario's protected areas provide in conserving biodiversity, and all their other ancillary values, are directly related to how effectively these areas are cared for through proper planning and management.

Covering nine per cent of the province, Ontario's system of protected areas comprises 334 provincial parks and 295 conservation reserves. The *Provincial Parks and Conservation Reserves Act, 2006* (*PPCRA*) governs this system of protected areas, and the Ministry of Natural Resources (MNR) is responsible for its planning and management. The Act directs MNR to make the maintenance of ecological integrity the first priority and to consider the restoration of ecological integrity in all aspects of protected areas planning and management. According to MNR, "ecosystems have integrity when their lands, waters, native species and natural processes are intact." This includes healthy and viable populations of species at risk in their natural habitat.

The *PPCRA* further directs that protected areas should be managed to permanently protect biodiversity, to provide opportunities for ecologically sustainable outdoor recreation, and for appreciation of Ontario's natural and cultural heritage. Protected areas should also be managed to facilitate scientific research in support of monitoring for ecological change. As such, the ministry is required to prepare management direction for each provincial park and conservation reserve.

Management direction, which consists of either a management statement or a management plan, provides protected areas with a site-specific policy and resource management framework. Non-complex issues are addressed through brief management statements, while more substantial and complex issues are covered in management plans. Management direction sets out policies for permitted activities within protected areas, such as identifying the types of activities (e.g., recreation, development, resource management, etc.) that are allowed in protected areas and establishing rules for when, where and to what extent these activities should take place. Management direction provides assurance that these activities are compatible with environmental protection and are responsive to the public interest. Plans and statements also provide a record of public consultation and input into the planning process.

Both internal pressures (such as hiking, fishing and other recreational activities within protected areas) and external pressures (such as mining and logging just outside park boundaries) can present challenges to managing the ecological integrity of protected areas. Collectively, these pressures can have significant and cumulative impacts on the lands, waters and species of a protected area if they are not thoroughly understood and carefully managed.

Additionally, past human activities have fundamentally altered the ecology of many ecosystems, so that plans for protected areas must include direction to restore important ecological features (i.e., species) and functions (i.e., fire, connectivity, etc.) that have been historically modified or even eliminated. Thus, management direction must address the full complement of pressures and issues facing protected areas with the overall priority of maintaining and restoring ecological integrity.

### Changes to Protected Areas Legislation

The Ontario government's 2012 omnibus budget bill – *Bill 55, Strong Action for Ontario Act (Budget Measures), 2012* – amended the *PPCRA* by removing time limits for the preparation, duration and periodic review of management direction for provincial parks and conservation reserves. These changes are part of the government's strategy to manage natural resources over broader landscapes, with an overall objective of reducing MNR's budget (for more information on MNR's transformation, see Part 2.1 of this Annual Report).

Formerly, MNR was required to prepare management direction for existing parks and conservation reserves within five years of their creation, with a deadline to prepare management direction for all existing protected areas by September 2012. However, with the passing of Bill 55, these deadlines no longer exist. Furthermore, the amended *PPCRA* now requires MNR to examine management direction that has been in place for 20 years or more, instead of the previous requirement to examine 10-year-old management direction.

## Request for Review of the *Provincial Parks and Conservation Reserves Act, 2006*

In December 2012, the ECO received an application for review under the *Environmental Bill of Rights, 1993* (*EBR*) requesting that MNR review the *PPCRA* and reverse the amendments included in the omnibus budget bill (Table 4.6.1). The applicants argued that the removal of legal planning deadlines could cause environmentally significant impacts as management direction will become, and remain, outdated for some protected areas while others may not have any management direction at all. In February 2013, MNR denied the applicants' request, concluding that a review of the *PPCRA* was not in the public interest (for a detailed review of this application, see Section 2.4.2 of the Supplement to this Annual Report).

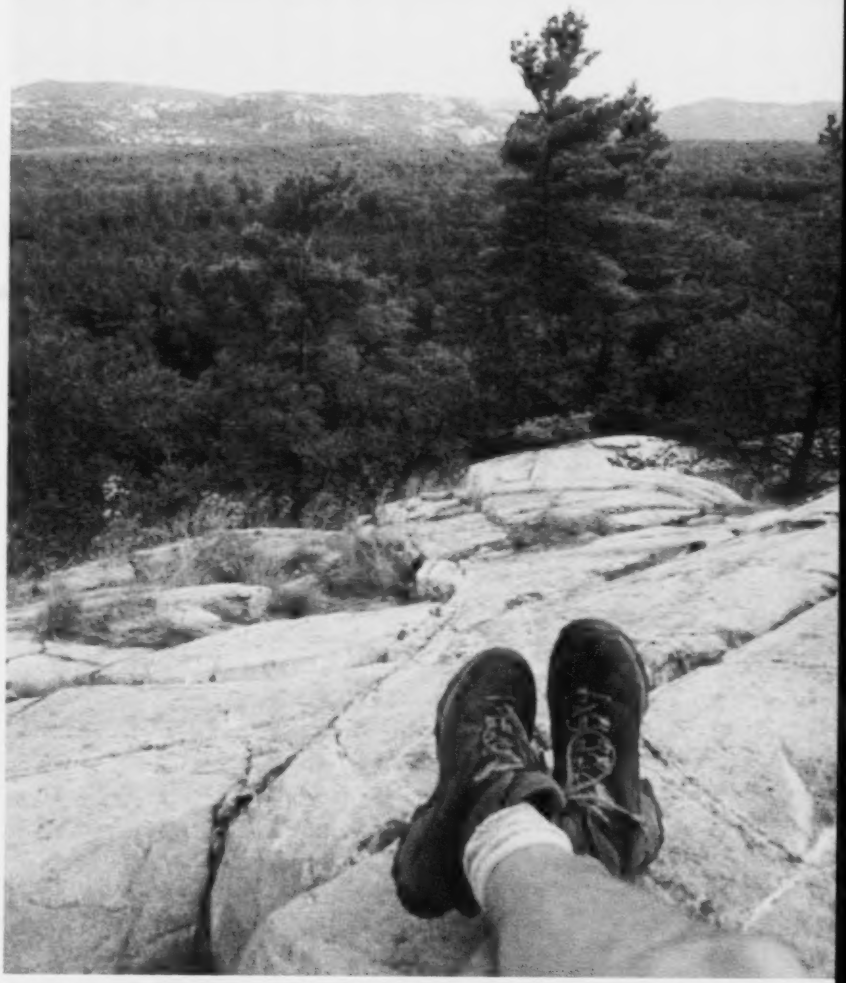
TABLE 4.6.1.

Summary of Bill 55 Changes to the *Provincial Parks and Conservation Reserves Act, 2006*

| Management Activities | Original Timelines | Current Timelines |
|---|---|---|
| Prepare management direction for existing protected areas | By September 2012 | Not specified |
| Prepare management direction for new protected areas | Within 5 years | Not specified |
| Planning horizon for management direction | 20 years | Not specified |
| Age of management direction to be considered for review | 10 years | 20 years |
| State of Ontario's Protected Areas Report due | Every 5 years | Every 10 years |

## Implications of Bill 55 Changes to the *PPCRA*

In our 2006/2007 Annual Report, the ECO warned that without proper planning and conscientious management, Ontario's protected areas would be nothing more than lines on a map. Turning a blind eye to protected areas will not ensure the conservation of those values and amenities they are meant to protect. The ECO also warned that MNR would face considerable challenges in implementing the *PPCRA* unless the ministry's budget was significantly increased. Yet, MNR continues to rely on a cost-recovery model for protected areas management.



The ministry primarily relies on revenues from operating parks to fund the management of all parks; however, 66 per cent of Ontario's parks are non-operating and, therefore, generate no revenue. While operating parks contributed $68 million to the special purpose account in fiscal year 2011-2012, MNR allocated only an additional $10 million for planning and managing the provincial parks system. This level of funding is totally insufficient to the task. But rather than increase its own funding, the government appears to have simply dropped some of its legal responsibilities for protected areas planning. Furthermore, the ministry admits that it does not directly track expenditures related to the management of conservation reserves.

Now, without legal deadlines, existing plans will become outdated and new protected areas could spend an indefinite amount of time with no management direction whatsoever. While the law still requires MNR to prepare and review management direction, the ministry will now be able to postpone these responsibilities. The ministry seems to be moving towards a reactive approach to protected areas planning in which it only addresses what it judges to be "priority" areas. This is unacceptable. Attention must not only be given to acute problems, but also to those that are chronic.

Protected areas exist to conserve biodiversity, not to generate revenue for the government. Ontario is arguably the only jurisdiction in North America that tries to fully finance its parks system from gate revenues. If nothing changes, then, over time, fewer and fewer resources will be devoted to ensuring that management direction effectively maintains and restores ecological integrity across the entire protected areas system. However, if the government were to increase funding by even a small margin, MNR could make a measurable, substantive difference in safeguarding Ontario's protected areas.

## Planning for Provincial Parks and Conservation Reserves

Updated management direction includes the most recent scientific information about the status of a protected area's ecological integrity. While management direction is currently in place for 617 out of 629 protected areas, many plans and statements are not up to date. Almost half of Ontario's 295 conservation reserves have management statements that are over 10 years old, and virtually none of them ever received the benefit of public consultation. In addition, most provincial parks are covered by management plans with an average age of 17 years. Killarney, Rondeau and Sandbanks are among the 145 provincial parks with management direction that is over 20 years old. Furthermore, the plans for some provincial parks have been in place for more than 30 years, including Petroglyphs (1977) and Polar Bear (1980). Outdated management direction lacks the information required to accurately assess threats, which impairs the development of effective strategies to maintain ecological integrity.

Nevertheless, the ministry considers all existing plans and statements to be "current," despite the fact that management direction for only 89 out of 629 protected areas has been either approved or amended since the *PPCRA* came into force in 2006. Plans and statements that were prepared prior to 2006 were not required to ensure that the maintenance of ecological integrity was the first priority of planning and management. Thus, less than 15 per cent of management direction explicitly addresses the legal mandate of the *PPCRA*. This problem extends to some of Ontario's most popular parks, including Algonquin and Wasaga Beach (see Table 4.6.2).

TABLE 4.6.2.

Select Statistics for Provincial Parks (Note: information regarding visitors is not collected for non-operating parks).

| Park Name | Park Size (ha) | Year established | Year of most recently approved management direction | Management direction explicity adopts ecological integrity as the first priority | 2011 Visitors | Number of species at risk | 2011/12 Revenues | 2011/12 Expenditures |
|---|---|---|---|---|---|---|---|---|
| Presqu'ile | 982 | 1922 | 2000 | No | 207,685 | 11 | $1,661,093 | $1,308,889 |
| Kesagami | 55,977 | 1983 | 1998 | No | Unknown | Unknown | n/a | $0 |
| Algonquin | 772,300 | 1893 | 1998 | No | 818,696 | 31 | $10,611,490 | $9,140,875 |
| Cabot Head | 4,514 | 1985 | 1996 | No | Unknown | 17 | n/a | $0 |
| Quetico | 471,878 | 1913 | 1995 | No | 80,634 | 3 | $1,131,537 | $1,454,161 |
| Lake Superior | 160,810 | 1944 | 1995 | No | 112,113 | 2 | $588,290 | $878,735 |
| Springwater | 193 | 1958 | 1994 | No | 31,062 | 7 | $202,510 | $248,910 |
| Sandbanks | 1,550 | 1970 | 1992 | No | 605,538 | 11 | $3,382,637 | $1,424,938 |
| Polar Bear | 2,355,200 | 1970 | 1980 | No | Unknown | 6 | n/a | $0 |
| Wasaga Beach | 1,844 | 1959 | 1978 | No | 1,497,228 | 24 | $1,149,958 | $1,268,128 |

Moreover, the longer a protected area waits for management direction, the greater the risk to ecological integrity. During this time, both the public and MNR remain in the dark as to how these ecologically significant places should be safeguarded. And yet, provincial parks wait an average of 15 years for management direction to be developed. In total, 108 parks went without management direction for more than 20 years. For example, Turtle River – White Otter Lake Provincial Park was created in 1989, but a management plan was not approved until 23 years later (see box on the Turtle River – White Otter Lake Provincial Park Management Plan). Currently, seven conservation reserves and five provincial parks do not have any management direction. The amended *PPCRA* will allow protected areas to wait an indefinite amount of time for management direction.

### 4.6.1 Turtle River – White Otter Lake Provincial Park Management Plan

Turtle River – White Otter Lake Provincial Park is located in northwestern Ontario between Ignace, Mine Centre and Atikokan. This waterway class park, established in 1989, now covers 49,294 hectares. For over two decades, recreational and commercial activities were carried out in the park despite the lack of a comprehensive resource inventory and management plan.

In July 2012, a management plan was finally approved for this protected area. The goal of this plan is to protect the park's values and "to provide a wide variety of compatible heritage appreciation, ecologically sustainable outdoor recreation opportunities and scientific research activities." MNR proposes to expand tourism in this park "to the greatest extent possible without adversely affecting the park environment."

As a non-operating park, it has minimal infrastructure and no permanent ministry staff, but it is used extensively for recreation and tourism, especially by anglers. The plan notes that visitation has increased dramatically in recent years; however, since it is a non-operating park, information on park use is not available, and there is no mention of when MNR will begin to collect such data. The plan notes that several of the park's lakes either experience heavy fishing or are at risk of overfishing.

A clear implication throughout this plan is that the ministry will not allocate resources for park management unless it can recover those costs by charging user fees. For example, MNR states that it will regulate hunting in select areas of the park, but only if it has sufficient resources to do so. Additionally, the ministry will not develop a backcountry recreation plan, nor will it undertake fisheries monitoring or values mapping unless resources become available.

The plan acknowledges several environmental issues in Turtle River – White Otter Lake Provincial Park, yet MNR will not take action because the park generates no revenue. Essentially, it took the ministry 23 years to develop a plan without a real plan. These types of concerns are not unique to this park.

*For a more detailed review of the Turtle River – White Otter Lake Provincial Park Management Plan, please refer to Section 1.8 of the Supplement to this Annual Report.*

The ministry's track record shows that the rate of drafting, amending and approving management direction for protected areas over the last seven years was alarmingly slow even when legislated deadlines were in place. Clearly, MNR is not providing sufficient resources for protected areas planning. Furthermore, it is evident that the ministry's reliance on the cost-recovery model has resulted in a substantial backlog of planning and subsequent management action. The failure of this model is further evidenced by the fact that management direction is older for operating parks than for non-operating parks and conservation reserves. There is no excuse for this. Operating parks face substantial pressures from human activities, which are unlikely to be adequately addressed in outdated management direction. Since resources are usually directed to operating parks, there should be enough funding to ensure that these areas, at least, have updated management plans.

### 4.6.2 What Happens When Parks Stop Making Enough Money?

In September 2012, MNR announced that the status of 10 parks would be changed from operating to non-operating because these parks were not making enough money to justify ongoing investments. Once these parks become non-operational, the public will still be able to visit them and engage in recreational opportunities, but the ministry will no longer provide facilities or services to support these activities. This is a perilous path; the ECO has long criticized the ministry for essentially ignoring non-operating parks. The ECO is concerned that MNR is not providing sufficient resources for the planning and management of non-operating parks and conservation reserves because the ministry is unable to recover those costs. The significance of a park's natural heritage is unrelated to visitation; therefore, MNR should develop and implement appropriate management activities for all protected areas regardless of visitor frequency.

The ECO is also disturbed that the ministry did not consult the public before making this decision. Changing the operational status of these parks involves amending their management direction, a process that is required to be open to public consultation under both the *Environmental Bill of Rights, 1993* and the *Provincial Parks and Conservation Reserves Act, 2006*. However, MNR took the position that this was an administrative decision and that no public participation was necessary. The ECO disagrees and so did the public. There was an immediate outcry, which resulted in MNR reversing its decision for 3 of the 10 parks in January 2013.

## Reporting on the State of Ontario's Protected Areas

The Minister of Natural Resources has a legal obligation to publicly report on the state of the protected areas system. The government's 2012 omnibus budget bill altered this self-reporting requirement – from once every 5 years to once every 10 years. These reports provide a broad assessment of whether MNR is meeting its objectives for protected areas planning. They are also intended to identify socio-economic benefits, as well as threats to ecological integrity. MNR released its first and only State of the Protected Areas Report in 2011. Now, the next report is not required until 2021.

The ECO has previously stated that it is extremely important for such reports to provide a frank assessment that will enable MNR to focus its resources on key systemic issues, be they common threats to ecological integrity or the need to strengthen government policy (see Part 4.4 of the ECO's 2008/2009 Annual Report). The 2011 State of the Protected Areas Report noted:

- Recreational activities, such as all-terrain vehicles, boating and snowmobiling, were identified as ecological stresses. However, MNR noted an "absence of quantitative studies that measure the impacts of recreational use."
- Hunting is permissible in 423 protected areas for game mammals, game birds and migratory birds. MNR noted that "it is not possible to determine the extent of hunting in protected areas" as the ministry does not specifically collect this information.
- Sport fishing is permissible in all protected areas, except where fish sanctuaries have been established. MNR noted that it "does not have estimates of harvest levels," although

"concern regarding the impact of fishing pressure on fish populations" was identified in 37 per cent of protected areas according to a survey of ministry staff in 106 parks.

- Trapping is permissible in 532 protected areas. MNR notes "the numbers and varieties of species harvested in protected areas are unknown."
- Invasive species were identified as a concern in 50 of 214 provincial parks in a ministry survey, but details are unknown.
- Operational expenditures (i.e., planning, management, enforcement, monitoring, etc.) are "directly related to visitation."

It is not possible for MNR to accurately identify threats to ecological integrity without this kind of information. Yet, it is unlikely that this situation will improve over the next reporting cycle unless the ministry commits sufficient resources to this issue. To date, there has been no indication that MNR is working to address the problems identified in its 2011 State of the Protected Areas Report.

## ECO COMMENT

A chronic lack of funding is the single greatest barrier to the effective planning, management and operation of the provincial system of protected areas. While the ECO believes it is acceptable for MNR to use gate revenues from operating parks to offset costs associated with recreational facilities and activities, it is illogical to apply the cost-recovery model to all aspects of running Ontario's system of protected areas. The ECO strongly disagrees with the ministry's reliance on the cost-recovery model because this approach provides no assurance that the maintenance of ecological integrity – the conservation of nature – will occur for the vast majority of protected areas that do not pay for themselves (see pp.41-47 in the ECO's 2003/2004 Annual Report and pp. 99-106 in the ECO's 2006/2007 Annual Report). The government should consider the costs of planning, management, enforcement and science in protected areas as investments in the health of our province, which will reap benefits for all Ontarians.

The ECO believes that protected areas are an invaluable public resource, and management should not be prioritized based on their ability to generate revenues. The value of parks and conservation reserves should not be measured in dollars and cents, but rather by the ultimate role they play in conserving Ontario's biodiversity.

The Ministry of Natural Resources manages protected areas on behalf of all Ontarians for a very special purpose: to maintain and restore ecological integrity. To fulfil this important responsibility, the government must provide sufficient funding for protected areas planning. Management direction for parks and conservation reserves must reflect the best available scientific information, planning practices, public input and current government policies in order to implement an adaptive ecosystem management approach that is both defensible and of practical value. Plans for protected areas are the roadmap to conserving Ontario's biodiversity, but without proper direction, our way is lost.

**RECOMMENDATION 7**

*The ECO recommends that MNR discontinue its user-fee cost-recovery approach for all aspects of the management of Ontario's protected areas, except for recreational activities.*

*For ministry comments, please see Appendix C.*

## 4.7 Shale Gas – Regulate Before Fracking Begins

Shale gas refers to natural gas that is trapped in microscopic spaces within highly impermeable rock. Until recently, it was not possible to efficiently extract natural gas from this type of rock. However, over the last few years, industry has developed new, cost-effective techniques for hydraulic fracturing ("fracking") of this rock. This has increased overall access to shale gas. Although there have not yet been any fracking operations for shale gas within Ontario, the province's geology suggests that there may be potential shale gas resources.

In our 2010/2011 Annual Report, the ECO highlighted environmental concerns related to fracking and provided a brief overview of Ontario's current regulatory framework (see Part 6.1 of the ECO's 2010/2011 Annual Report). Among these concerns are the large amounts of water consumed in the process, the chemicals that are used, and the resulting wastewater and air pollution generated.

The Minister of Natural Resources has the authority to regulate natural gas extraction under the *Oil, Gas and Salt Resources Act* (*OGSRA*). However, the existing regulatory framework – primarily, O. Reg. 245/97 (Exploration, Drilling and Production) made under the *OGSRA* and the Provincial Standards for the Oil, Gas and Salt Resources of Ontario – pre-dates unconventional natural gas extraction processes and, therefore, was not developed with fracking in mind. As a result, the ECO recommended in our 2010/2011 Annual Report that the Ministry of Natural Resources (MNR) and the Ministry of the Environment (MOE) review and publicly report on the sufficiency of the regulatory framework to protect water resources and the natural environment from shale gas extraction. Neither ministry has followed through with this recommendation.

### An Update on Potential Shale Gas in Ontario

In 2012, the Ontario Geological Survey (OGS) published its preliminary results of an evaluation of southern Ontario's potential shale gas resources. This review began in 2009 and analyzed both newly drilled and previously collected rock samples to assess the province's shale gas potential. Results showed that the Rouge River Member of the Blue Mountain Formation and the Collingwood Member of the Cobourg Formation have the best shale gas potential in southern Ontario. This information eventually will help the government assess the energy potential of the formations and the implications for groundwater quality and public health. However, no analysis was conducted on the economic potential of the resource.

Despite the geological potential in Ontario, as of April 2013, MNR has only received one application (in 2006), submitted pursuant to the Provincial Standards under the *OGSRA* for exploration, to drill for natural gas in Ontario's shale rock. MNR told the ECO that this well "did not encounter an economic quantity of gas and was subsequently plugged on July 10, 2007, without completing a hydraulic fracture treatment."

Although there has been only one well drilled to explore for shale gas in Ontario, media reports indicate that a number of companies may be engaging in the preliminary stages of fracking development by acquiring mineral rights for natural gas in southern Ontario. In southern Ontario, mineral rights are generally owned by the surface land owner, who is free to lease his or her mineral rights as they see fit. Ontario does not require registration of these leases on title, nor does the government regulate the terms of such lease agreements between private parties. As such, it is possible that a number of lease agreements have been made for shale gas rights, but such information unfortunately is not readily accessible by the public. In response to an information request from the ECO on such lease agreements, MNR reported that even the ministry does not have convenient access to this information.

## The Regulation of Fracking Across Canada

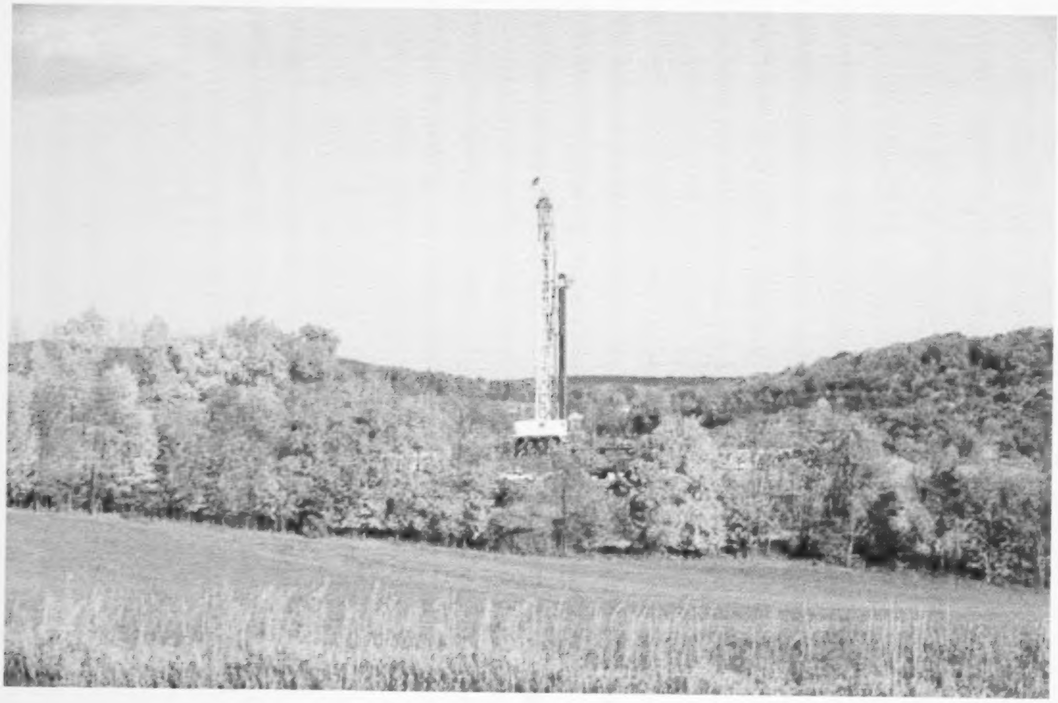
### *Federal Activities*

In Canada, the regulation of natural resources, including oil and natural gas, is generally a provincial responsibility. However, there has been some work on fracking underway at the federal level. For example, Environment Canada has initiated a review, expected to be completed by March 2014, of the reporting requirements under the National Pollutant Release Inventory, which currently exempts oil and gas exploration and drilling. The federal Minister of the Environment has also requested the Council of Canadian Academies (an independent, not-for-profit organization) to provide an evidence-based assessment of the state of knowledge regarding the potential environmental impacts of fracking and the associated mitigation options.

### *Provincial Activities*

Provinces with identified shale gas potential include British Columbia (BC), Alberta, Saskatchewan, Ontario, Quebec, New Brunswick, Nova Scotia, and Newfoundland and Labrador. Whereas Ontario does not have an explicit fracking policy in place, most of these other provinces have established policies related to shale gas and hydraulic fracturing – either prior to or post shale gas and fracking development.

So far, Canadian production has been concentrated in Alberta and BC and both provinces are addressing environmental issues as they emerge. For example, in response to a rare interaction between two wells in Alberta that resulted in the accidental release of fracking fluids at



the surface, the Alberta government put forward draft regulations aimed at managing risks associated with fracking operations. Alberta has also released a discussion paper, Regulating Unconventional Oil and Gas in Alberta, which considers managing the cumulative effects of the oil and gas industry and taking a more regional approach. The BC Oil and Gas Commission began using a website (www.fracfocus.ca) to act as an online resource for information on hydraulically fractured wells, including an online disclosure of chemicals used by companies; Alberta also uses this online registry.

Saskatchewan modified its royalty rate to encourage shale gas exploration and production, and New Brunswick released a new set of rules for industry – Responsible Environmental Management of Oil and Natural Gas Activities in New Brunswick – earlier this year. Included in the rules is a "dispute resolution mechanism," that will see the provincial government (and not individual property owners) handle the remediation of water or other environmental issues and seek compensation from industry.

In 2011, the Quebec government limited shale gas activity on a regional basis. That same year, Nova Scotia began a multi-year review of hydraulic fracturing, which is still underway. No hydraulic fracturing will be approved in Nova Scotia during the review.

### *Industry Initiatives*

Industry organizations, such as the Canadian Association of Petroleum Producers (CAPP), are developing guiding principles and operating practices that support and encourage transparency in this sector. For example, CAPP has developed seven operating practices thus far that address environmental issues ranging from disclosing chemicals used by industry to performing baseline groundwater testing.

## EBR Application for Review on Fracking

In October 2012, two applicants submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting a review of the *OGSRA* and several regulations under the *Environmental Protection Act* as they relate to the waste management of fracking fluids (see Section 2.4.1 of the Supplement to this Annual Report). In January 2013, MNR and MOE agreed to undertake the requested review, although neither ministry provided a firm date for when they plan to complete the review. The ECO will report on this review once it is completed.

## ECO COMMENT

Natural gas is an important fuel that is used to generate electricity and power industry, and also heat homes, businesses and institutions. Arguably, there are economic and social benefits that accrue to the ability to access more of this energy resource. However, these benefits do not come without potential drawbacks, as there are serious environmental concerns related to the extraction of natural gas from shale rock. This delicate balance of benefits and drawbacks makes shale gas a vital public policy issue.

There are major water use and wastewater concerns related to shale gas and hydraulic fracturing that must be addressed. Conventional fracking uses significant amounts of water and generates large amounts of wastewater. If hydraulic fracturing were to take place in Ontario for shale gas extraction, the government must ensure that water takings and the generated wastewater are managed properly. There are also important land rehabilitation issues. The public will need certainty that the land will be restored to its pre-well state once industrial operations come to an end. There is also a growing debate related to the amount of methane released during shale gas extraction, making some researchers question the effects of shale gas extraction on greenhouse gas emissions.

Ontario is in a unique position; this province has a long history of oil and natural gas extraction, and already has regulations in place that apply to these operations. Yet there is no policy or regulation that specifically addresses the unique concerns related to fracking. Sufficient regulation is necessary for safeguarding properties, citizens and the environment. Experiences like those in Alberta highlight the importance of having a regulatory framework that addresses the technical elements that are specific to fracking. Shale gas production has increased dramatically in recent years in other jurisdictions, and there is a growing body of information on the topic from academia, industry and regulators that can help inform Ontario's regulatory approach. The Ontario government can learn some lessons from Quebec. When shale gas activity began, Quebec had no regulation that specifically addressed this activity, so the government relied on its existing legislation to govern initial exploration. Natural gas leaks were unfortunately detected in some of the shale gas wells, which led to various environmental reviews and a halt to exploration and drilling activities. From this experience, it would be wise and prudent for regulators to develop rules before allowing industry to proceed.

Fracking is a complex process that comes with many environmental concerns. Additionally, since fracking is a dispersed industrial process (it requires wells, roads, and other facilities that can be spread out across a large area of land), it is possible that future projects may occur in areas that have conflicting land uses, like prime agricultural lands or significant natural heritage features, and this could generate public backlash. In this case, the Ontario government can learn some lessons from itself. Solar energy generation projects have faced numerous siting issues in this province, resulting in rule changes for where these projects can occur. Given that solar panel installations are relatively benign in comparison to shale gas projects, it is obvious that land use issues must be considered before any shale gas extraction takes place.

Proactive regulation that places Ontario ahead in terms of safety and environmental issues could be advantageous for residents and industry alike. Other jurisdictions, like New Brunswick and Illinois, are developing rules for fracking operations before major industry developments occur. The work undertaken by industry to encourage transparency and best practices for shale gas extraction demonstrates that industry wants to develop shale gas resources responsibly and to educate the public about what it is doing. This is commendable. However, government should not rely on industry to do its own job; as the regulators, it is MOE and MNR's role to set appropriate standards for this developing process, and establish/ensure suitable inspection and enforcement provisions.

*For ministry comments, please see Appendix C.*

# 4.8 Channelling the Earth's Energy: Ground-Source Heating and Cooling Systems

At its core, the Earth's temperature is over 4,000°C! As one approaches the surface, the temperature gradually decreases. The temperature in the top 200 metres (m) of the crust stays relatively constant – moderated by both the planet's internal heat and absorbed solar energy – ranging between 6 and 11°C in Ontario. Ground-source heating and cooling systems (also known as geoexchange systems, but commonly referred to by Ontario's Ministry of the Environment [MOE] as geothermal systems or earth energy systems) utilize this constant temperature just beneath the Earth's surface to heat buildings in the winter and cool air during warmer months.

The use of ground-source heating and cooling systems is increasing in Ontario with the acknowledgment that geothermal energy is an accepted energy conservation measure. While some regulatory requirements apply to open-loop systems, until recently, closed-loop systems were subject to little regulatory oversight (with the exception of a ban on the use of methanol as a heat transfer fluid). Recent regulatory changes now address potential safety hazards associated with vertical closed-loop systems, but there are still few safeguards to ensure that they do not harm the environment. The ECO saw this as an opportune time to examine the environmental risks and benefits of ground-source heating and cooling generally, with a focus on the new rules for vertical closed-loop systems, and to consider whether there is a need for increased government oversight.

## Ground-Source Heating and Cooling – How Does it Work?

A geoexchange system consists of three main components:

1. A circuit of underground pipes filled with heat-transfer fluids that exchanges heat with the underground environment;
2. A heat pump to extract heat from the fluids and transfer it to the building (the process is reversed for cooling); and
3. A system for distributing the heat in the building (usually conventional ductwork).

Ground-source heat pump systems can be installed anywhere, and do not require concentrated sources of underground heat. There are two main types of systems:

| | |
|---|---|
| ***Closed-loop:*** | U-shaped pipes filled with a heat transfer fluid (usually a mixture of water and an antifreeze, such as ethanol, ethylene glycol or propylene glycol, but sometimes a refrigerant) connect to a heat pump inside the building. The heat pump extracts the heat from the fluid and circulates it through the building. These systems can be vertical (pipes are installed vertically in holes drilled deep in the ground, typically between 18 – 60 m deep) or horizontal (pipes are laid horizontally in shallow trenches, usually 1.0 – 2.5 m deep). Vertical systems do not require a large surface area footprint and are more suitable for smaller lots. The heat transfer fluid is continually recirculated and, provided the system is operating correctly, does not come into contact with soil or groundwater (see Figures 4.8.1a and 4.8.1b). |
| ***Open-loop:*** | The system's pipes are connected to a water source (e.g., a well, aquifer or water body) and the water is circulated through a heat pump as in a closed-loop system. The water is then returned to the source or to another water body (see Figures 4.8.1c and 4.8.1d). |

Use of ground-source heating and cooling systems is on the rise; since 2008, more than 9,000 vertical systems were installed in Ontario.

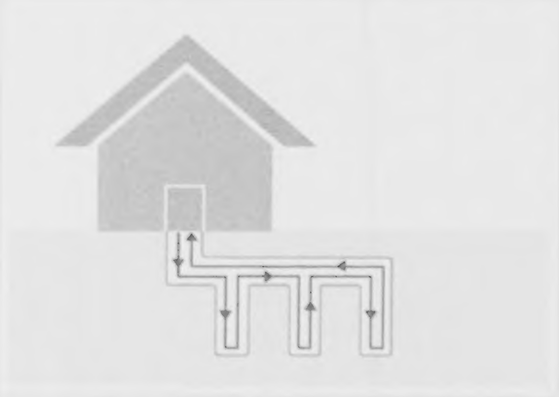


**FIGURE 4.8.1A**

A vertical closed-loop ground-source heat pump system.

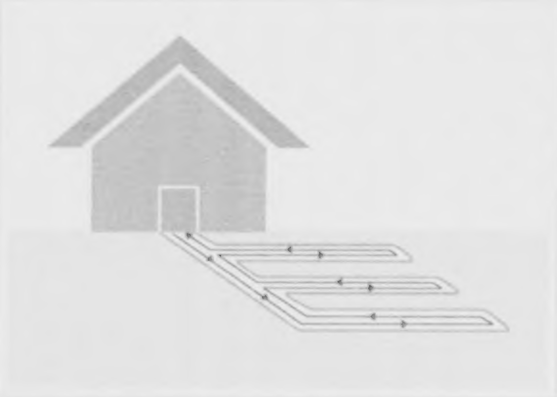


**FIGURE 4.8.1B**

A horizontal closed-loop ground-source heat pump system.

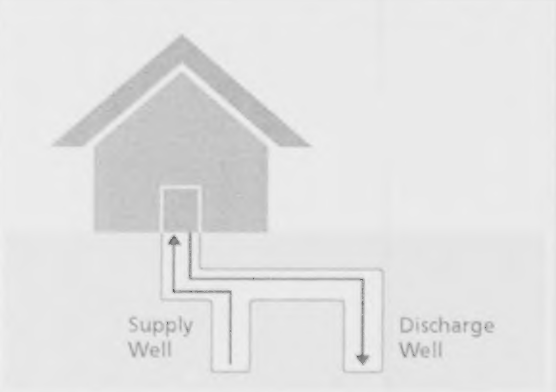


**FIGURE 4.8.1C**

An open-loop ground-source heat pump system, connecting to groundwater.

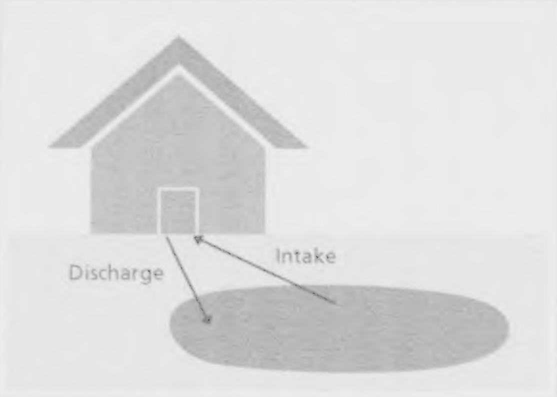


**FIGURE 4.8.1D**

A horizontal open-loop ground-source heat pump system, connecting to a nearby surface water body.

## Are Ground-Source Heating and Cooling Systems Good for the Environment?

Ground-source heat pumps are considered to be the most energy efficient means of heating and cooling buildings; they can provide heating using just 25 to 30 per cent of the energy consumed by traditional heating systems.

In addition, ground-source heat pumps are often used to replace fossil fuel based heating systems (e.g., natural gas, propane, heating oil). This reduction in fossil fuel consumption leads to a significant reduction in the associated emissions of greenhouse gases (GHGs), nitrogen oxides ($NO_x$) and sulphur oxides ($SO_x$), with the reduction compounded by Ontario's low carbon electricity supply. Ground-source energy harnessed by ground-source heat pump technology is specifically designated as a renewable energy source for purposes of the *Green Energy Act, 2009*. Further, Ontario's Supply Mix Directive specifically includes load reduction from geothermal heating and cooling in the definition of CDM (conservation and demand management).

Despite the benefits of ground-source heat pumps, they also carry some environmental risks. For example, open-loop systems, which extract and return water to wells or water bodies, can negatively affect water quantity and temperature, as well as the groundwater flow regime. In both open- and closed-loop systems, improper drilling of boreholes during installation, as well as improper maintenance and repairs, can create contaminant pathways, facilitating the transfer of surface contaminants, natural gas, mineralized water and other materials to the aquifers below.

In closed-loop systems, spills or leaks of transfer fluid from the underground pipes can contaminate soil, surface water and groundwater. Not only do the antifreezes and refrigerants used as transfer fluids pose environmental risks, but additives in heat transfer fluids (such as biocides, anti-corrosives, flow enhancers and machine oil), if leaked, can also degrade the environment. Explosive and flammable natural gas may be encountered when drilling for vertical systems, posing a risk to both the environment and human health and public safety. Nevertheless, the U.S. Environmental Protection Agency has concluded that ground-source heat pumps pose minimal environmental risk when best management practices are applied during installation, operation and decommissioning.

## How are Ground-Source Heating and Cooling Systems Regulated in Ontario?

Ontario's Building Code requires earth energy systems to conform to Canadian Standards Association (CSA) design and installation standards, which include some provisions to help reduce environmental risks (such as spills of heat transfer fluids and the creation of contaminant pathways), as well as an annex providing non-mandatory environmental guidelines. However, the Building Code only applies if a building permit is required under the *Building Code Act, 1992*, and the Ministry of the Environment (MOE) has noted that "there is a poor understanding of the need for [a building] permit" for ground-source heat pump systems. Although MOE takes the position that a building permit is required to construct an earth energy system, some municipalities reportedly do not require building permits for such systems. It is, therefore, unclear whether Building Code requirements, such as conformity with the CSA standards, are being followed or enforced for many installations.

An industry association, the Canadian Geoexchange Coalition (CGC), also offers training and accreditation programs intended to ensure that industry best practices are used in the design and installation of ground-source heat pump systems.

Open-loop ground-source heat pump systems are subject to requirements under the *Ontario Water Resources Act* (*OWRA*) and Regulation 903 (Wells) made under the *OWRA*. The *OWRA* sets out requirements for obtaining a permit to take water, which may be required for some open-loop systems. Regulation 903 sets minimum standards for the design, construction, maintenance and decommissioning of all water wells in Ontario, as well as licensing requirements for those engaged in well construction and equipment installation, and is intended to "prevent contaminants from entering groundwater and other drinking water sources through poorly constructed wells." Nevertheless, there is no dedicated approval required specifically for the construction of open-loop systems.

Until recently there were no regulated standards applicable to closed-loop ground-source heat pumps (with the exception of a ban on the use of methanol as a heat transfer fluid), and such systems did not require any provincial approval.

All geoexchange systems are subject to the general prohibition sections of the *Environmental Protection Act* (*EPA*) and the *OWRA*, which create offences for the discharge of contaminants into the natural environment that cause or may cause an adverse effect, or the discharge of any material that may impair the quality of any waters.

### The "Other" Geothermal Energy...

The energy used by ground-source heating and cooling systems in Ontario is not the high-temperature geothermal energy – generated by both radioactive decay and primordial heat from the planet's formation – that resides much deeper within the Earth. This deep geothermal energy can be used to provide direct heating without the use of a heat pump, or to drive turbines that produce electricity.

While deep geothermal heat exists everywhere beneath Earth's surface, only some areas (e.g., Iceland) offer access to high quality resources; Ontario has low potential for such resources.

## Approval Now Required for Vertical Closed-Loop Ground-Source Heat Pumps

In April 2012, a near disaster occurred when flammable naturally occurring gas was inadvertently released during the drilling of a borehole for a ground-source heat pump in Oakville. In response, on May 18, 2012, MOE filed a new regulation (O. Reg. 98/12) under the *EPA*, to govern vertical closed-loop ground-source heat pumps. The regulation requires anyone who wishes to construct, alter, extend or replace a closed-loop ground-source heat pump extending more than five metres below ground to obtain an Environmental Compliance Approval (ECA) under the *EPA*. The new rules do not apply to horizontal systems as they are not at risk of encountering natural gas.

To obtain an ECA, an applicant (usually the installer) must submit a work plan prepared by a licensed engineering practitioner or professional geoscientist. The work plan, which would apply to all systems installed by the applicant anywhere in the province, must identify equipment and procedures to be used to monitor for the presence and migration of hazardous gas, and include provisions for preventing or reducing the likelihood of migration of hazardous gas, as well as preventing an adverse effect if gas is encountered. This includes requiring a preliminary "geological prognosis" to identify conditions and specific needs of the site. The work plan must also identify a standard of protection that is at least equal to what is required in similar circumstances by the Ministry of Natural Resources' Oil, Gas and Salt Resources of Ontario – Provincial Operating Standards, Version 2.0, and must include a health and safety plan. Finally,

O. Reg. 98/12 establishes emergency response and notification requirements in the event that hazardous gas is encountered.

MOE informed the public of the new regulation by way of an exception notice posted on the Environmental Registry (#011-6376). The ministry justified its use of the exception notice – which excused the ministry from its obligation under the *Environmental Bill of Rights, 1993* (*EBR*) to consult the public before making the decision – on the basis that allowing for public participation would have delayed the ministry's ability to reduce the health and safety risks posed by flammable gases when boreholes are drilled for geothermal systems.

The CGC decried the "ill-conceived and hastily written" regulation for halting geothermal drilling province-wide "for no valid technical, scientific reason."

## Life after O. Reg. 98/12

To minimize disruption to the industry caused by the unexpected regulation, MOE developed a "streamlined approvals program that provides upfront clarity in the requirements for obtaining an ECA," including a customized application form and an evaluation checklist to facilitate more efficient reviews of applications. In June 2012, MOE posted an information notice on the Environmental Registry (#011-6520) that provided a copy of the application form, as well as detailed instructions for completing the form and preparing the accompanying work plan. MOE also invited proponents to attend pre-submission consultation meetings to assist them in preparing good quality applications that would move through the review process more quickly. The ministry has reported that the majority of approvals have been issued within 60 days.

Because ECAs are prescribed as Class II instruments under the *EBR*, proposals for ECAs for vertical closed-loop ground-source heat pumps must be posted on the Environmental Registry for public consultation before MOE makes a decision whether or not to issue the approval. MOE has committed to posting proposals for these ECAs for a minimum of 45 days, concurrent with the ministry's technical review.

The first ECA for a ground-source heat pump was issued on August 21, 2012, and over a dozen were issued by the end of 2012. All of the ECAs issued as of March 2013 have been virtually identical, "multi-site" approvals for companies to install vertical closed-loop systems anywhere across the province. Although MOE has referred to the work plan supporting an ECA application as "the heart of the application," tailored for each proponent based on such information as the type of equipment to be used and depth of drilling, copies of the work plans are not included in the proposal or decision notices posted on the Environmental Registry. Draft ECAs are not included in proposal notices even though a standard ECA is ultimately used for each approval. As of July 2013, no public comments have been submitted on any of the proposed ECAs.

## Compliance and Enforcement

Every ECA for a ground-source heat pump requires the proponent to provide MOE with a monthly project log listing all current, completed and proposed projects; MOE will therefore have a record of all authorized closed-loop geoexchange systems being installed in the province. MOE has stated that it will approach compliance and enforcement in a progressive manner, through: guidance, education and outreach; voluntary abatement; responses to reported incidents; orders; and tickets and prosecutions.

MOE has also initiated a new inspection program to inspect vertical geoexchange systems. Trained environmental officers conducted the first inspection in September 2012, and 10 had been completed by February 2013. MOE aims to inspect at least two systems installed by each approval holder. The ministry reported that inspections as of February 2013 had revealed some administrative non-compliance, such as failure to supply project logs to the ministry. The ministry has issued one order related to improper technical work and failure to conduct a geological prognosis.

### Next Steps

Although MOE indicated in May 2012 that it would be considering "longer term measures to help ensure effective oversight of both open- and closed-loop geothermal systems and adequate qualifications and requirements for the licensing of geothermal installers," as of July 2013 the ministry had not proposed any such additional measures. However, MOE advised the ECO in February 2013 that one of its next steps will be to consider, in consultation with industry and other stakeholders, other policy approaches to regulating these systems.

In the meantime, in March 2013, MOE posted an information notice on the Environmental Registry (#011-8552) on the release of an updated – and considerably more detailed – technical bulletin, Earth Energy Systems in Ontario, which provides background information and outlines Ontario's legislative and regulatory requirements for ground-source heating and cooling systems.

## ECO COMMENT

The ECO believes that MOE responded appropriately in the wake of the Oakville incident: carefully but swiftly, sensitive to the impacts on an industry caught off guard. The passage of O. Reg. 98/12 imposed a temporary halt on all vertical closed-loop ground-source heat pump installation in Ontario, so it was imperative for MOE to move quickly to minimize the economic impact on the industry. The relatively short turnaround time between the filing of O. Reg. 98/12 and the issuance of the first ECAs indicates that MOE successfully met this challenge.

The new approvals regime should ensure that persons installing vertical closed-loop ground-source heating systems are prepared for the potential dangers of encountering natural gas while drilling. MOE's approach to developing an approvals program by working with industry to enable expedited issuance of approvals without compromising on content, as well as developing a robust inspection and enforcement program, should be commended.

MOE had to find a balance that would protect against health and safety risks while not imposing too high a cost, given the energy conservation and GHG emissions reductions benefits that these systems offer. This is particularly important as previous incentive programs to encourage ground-source heat pumps (e.g., the federal ecoENERGY Retrofit program and the Ontario Home Energy Savings Program) have ended. MOE's decision to allow a multi-site approval is a sensible approach, as the cost and time to obtain a separate approval for each individual site would have introduced a significant barrier, particularly for residential systems.

However, the new regulation was designed to address only one risk (albeit a major one): the risk of encountering naturally occurring hazardous gas. MOE currently has no regulatory tools specifically designed to prevent vertical closed-loop geoexchange systems from introducing contaminant pathways, leaking heat transfer fluid or otherwise harming the environment, although these risks may be reduced as a consequence of some of the provisions in installer work plans.

The ECO hopes that, going forward, MOE will perform a more comprehensive analysis to review whether the existing regulatory framework for vertical closed-loop ground-source heat pumps adequately addresses risks to the environment. Such analysis could extend to horizontal systems and open-loop systems, which lack any dedicated approval regime, yet also have the potential to introduce contaminants into the environment. MOE should also consider whether requirements are needed to prescribe the qualifications of people who work on geoexchange systems (e.g., drillers, etc.), similar to the licensing requirements for water well technicians.

The ECO also encourages the Ministry of Municipal Affairs and Housing, which administers the *Building Code Act, 1992*, to work with the Ontario Building Officials Association (OBOA) to clarify the rules around the need for building permits for geoexchange systems. A 2010 agreement between the OBOA and the CGC to train Ontario inspectors in ground-source heat pump inspection processes and building code issues is a positive step in this regard.

Finally, MOE should improve its current approach to giving notice of ECAs for vertical closed-loop ground-source heat pumps on the Environmental Registry. The public is not well served by brief notices that include neither the draft ECAs nor the work plans that support the applications. MOE should, at a minimum, include a more detailed description of the proposed content of ECAs and the individual work plans supporting approval applications. This will provide more transparency about specific applications and allow the public to exercise its *EBR* rights in a meaningful fashion.

Ontario is right to promote the use of ground-source heating and cooling systems as an effective approach to reducing non-renewable energy consumption and GHG emissions. However, it is important that the province is also confident that the regulatory framework is adequate to ensure the safe and qualified installation, operation, maintenance and decommissioning of such systems, for the sake of both human safety and the environment.

*For ministry comments, please see Appendix C.*

## 4.9 From Peak P to P Soup: The Phosphorus Challenge on Ontario Farms

### Introduction: The Essential P

The element known as phosphorus is often referred to in agricultural circles simply as "P" (as in the N-P-K numbers on fertilizer bags). It is a nutrient essential to plant growth and, therefore, to food production. In fact, phosphorus is often the limiting nutrient in both natural and agricultural ecosystems, where its scarcity restricts productivity. Thus, phosphorus has also been called "life's bottleneck."

Modern agriculture, with its greatly enhanced yields, owes a lot of its success to the expanded use of phosphate rock as fertilizer, a practice that gained momentum after the Second World War. Currently, about 80 per cent of mined phosphate rock – 180 million tonnes in 2010 – is used as fertilizer. In Ontario alone, almost 100,000 tonnes of phosphorus (43,000 tonnes of elemental P) are applied to farmland every year, contributing nutrients to agricultural systems.

## The Phosphorus Cycle

Technically, phosphorus is a renewable resource. As a basic element, it cannot be created or destroyed, only recycled. Resource specialists, however, consider phosphorus to be a non-renewable resource, like oil and gas. The reason for this discrepancy is the same as that for fossil fuels: the recycling timeframe. In nature, phosphorus follows a very slow cycle, marked in geologic time scales.

The phosphorus cycle refers to a process whereby either igneous rock or sedimentary rock containing ancient reserves of phosphates is very gradually broken down into soil (see Figure 4.9.1). Weathering and biological processes drive this very slow, but relentless, process. The phosphorus that is released is taken up by life forms, from microbes to plants and animals, and used as an essential biological building block. As the various life forms (including humans) secrete wastes, or when they die and decay, the phosphorus returns to the soil, where it eventually becomes available for uptake again by organisms. The duration of this soil-biosphere subcycle depends on many factors, but it eventually ends when the phosphorus is deposited in water (via nutrient run-off, erosion, etc.), where a water-biosphere subcycle begins. These processes continue until the phosphorus, usually in the form of shells of dead sea life, settles out as sediment on the bottom of lakes or oceans, where the process of sedimentary rock formation begins. Eventually, over millions of years, geological forces expose this sedimentary rock to the weathering process and the cycle starts again.

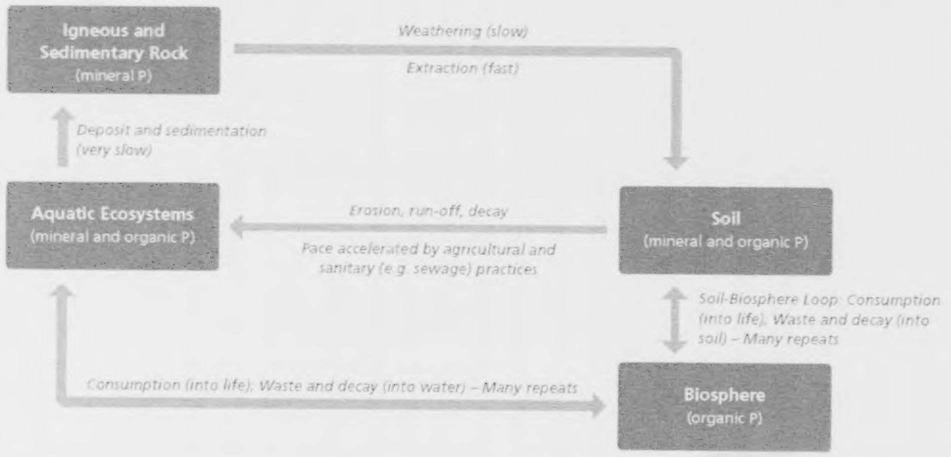

Igneous and Sedimentary Rock (mineral P)
Weathering (slow)
Extraction (fast)
Deposit and sedimentation (very slow)
Aquatic Ecosystems (mineral and organic P)
Erosion, run-off, decay
Pace accelerated by agricultural and sanitary (e.g. sewage) practices
Soil (mineral and organic P)
Soil-Biosphere Loop: Consumption (into life); Waste and decay (into soil) – Many repeats
Consumption (into life); Waste and decay (into water) – Many repeats
Biosphere (organic P)

**FIGURE 4.9.1.**
The phosphorus cycle

Figure 4.9.1 also illustrates how agriculture can interfere with the phosphorus cycle in two important ways. First, phosphorus deposits in igneous or sedimentary rock are mined for fertilizer production, speeding up the natural weathering process exponentially (the top arrow). Second, inappropriate agricultural practices (resulting in soil erosion, nutrient run-off from farmlands, etc.) and poor sewage and storm water management practices (causing sewage discharges to surface waters) result in excessive amounts of phosphorus re-entering aquatic ecosystems at a rate that far exceeds that of natural processes (the middle arrow). In

undisturbed ecosystems, phosphorus would enter the system much more slowly and would remain in the soil-biosphere loop (right arrow) for significantly longer before entering the aquatic environment.

In essence, humans are pushing larger amounts of phosphorus through the biosphere at a much faster rate than occurs naturally, creating two major problems: 1) depletion of vital mineral phosphorus reserves, potentially leading to a scarcity phenomenon known as "peak P"; and 2) overgrowths of green algae in ponds, lakes and oceans, a phenomenon known as "cultural eutrophication," colourfully described by the Worldwatch Institute as "P soup."

## Peak Phosphorus: Is the World Running out of Phosphate Rock?

The debate is not whether supplies will eventually run out, but rather when it will happen. Optimists suggest that currently identified reserves will last about 300 years. Pessimists counter that while total reserves may last centuries, economically viable reserves may be depleted within a few decades, if not sooner.

This is where the "peak P" concept comes in. Similar to the notion of "peak oil," which posits that petroleum production will follow the shape of a bell curve, with a peak after which production would predictably and consistently drop, a key conclusion is that a resource's reserves do not have to be completely depleted for major negative impacts to occur. According to peak-P proponents, once the peak is achieved, the best rock reserves will be gone; as a result, costs will rise, production levels will drop off and production will be unable to match demand. This will result in prices being driven to unaffordable levels, a situation that will be challenging as the demand for phosphorus continues to rise to meet the food needs of a growing world population.

From a conservation perspective, whether the reserves will be depleted in 60 years or 300 years should not be the fundamental question. In either case, future generations will eventually face

the reality of agricultural production based only on recycled phosphorus, from such sources as manure, crop residues and human sewage. Mineral-based phosphate fertilizer will cease to be available or will be too expensive for widespread use.

## Phosphorus Pollution

Concerns about excessive phosphorus loadings to water first arose in the late 1960s, when a Canadian scientist demonstrated that this nutrient was causing major eutrophication problems in the Great Lakes, particularly in Lake Erie. As a result, several major initiatives were undertaken, including the elimination of phosphates from commercial detergents and the improvement of sewage treatment by many Ontario municipalities. These efforts were largely successful and the water quality in the Great Lakes had improved considerably by the early 1990s.

However, since the mid-1990s the level of dissolved phosphorus in a number of Great Lakes watersheds has again been increasing, as has the incidence of algal blooms. Eutrophication of Lake Erie and near-shore areas of Lakes Ontario and Huron has been re-emerging as a major environmental concern. Nutrients from croplands are undoubtedly an important source. For example, recent estimates for two Ontario watersheds suggested that farms were responsible for 25 and 50 per cent of the phosphorus loadings. It is apparent that more work is needed to limit phosphorus losses from farms.

This issue, however, is complicated. As indicated previously, phosphorus is absolutely essential to high agricultural productivity. Moreover, it is a difficult nutrient to manage, largely due to the characteristic referred to as "availability." Phosphorus can only be taken up by plants in its mineralized water-soluble form. Organic forms, such as found in plant residues, for instance, must be converted by microbes into a plant-available form, a process known as mineralization. Without the addition of chemical fertilizer (which comes ready-made in a soluble, plant-available form), plant uptake of phosphorus is restricted by the rate at which mineralization is occurring in the soil, a factor that is much harder for a farmer to control. To add another layer of complexity, mineralized phosphorus binds fairly rapidly to various substances in the soil, such as iron, aluminum, calcium and various organic substances. When this happens, it is no longer available to the plant. This is such a common and rapid occurrence that phosphorus fertilizers are only considered to be about 20 per cent efficient in the year of application, since the other 80 per cent is quickly lost to this binding. (Over longer periods, however, this phosphorus can become available to plants once again; studies indicate that the long-term efficiency of phosphorus fertilizer use can be up to 90 per cent.)

The limited availability of phosphorus has historically resulted in two important and long-term impacts. First, much more phosphorus fertilizer has been used for each application than has actually been taken up by the crop; and second, the level of unavailable phosphorus built up in soils with each application of nutrients. In many cases, the soil eventually reached a saturation point where it could not bind any more phosphorus, increasing the potential run-off of excess nutrients and contributing to the eutrophication of the province's ponds and lakes.

This saturation, however, has had the positive effect of reducing fertilizer requirements (although not to zero, as each new crop still requires fertilization). The Ontario Ministry of Agriculture and Food (OMAF) reports that levels of available phosphorus in agricultural soils have been decreasing over the past decade due to various factors, including reduced fertilizer application (less was required due to high residual P levels). Accordingly, analyses show that the amount of phosphorus removed from the soil by plants now often exceeds the amount applied as manure and fertilizer. However, decreasing levels of available phosphorus in soils do not guarantee decreasing pollution. The application of soluble fertilizer as a top-up of available phosphorus for plants always presents a risk of unabsorbed nutrients running-off into surface waters.

## A Phosphorus Management Hierarchy

OMAF encourages farmers to use a variety of best management practices (BMPs) to combat phosphorus losses to the environment, such as nutrient planning methods, use of cover crops and buffer strips, and good residue management. The ministry's Phosphorus Primer and various BMP guides are useful, easy-to-read sources of valuable information for farmers. However, despite the availability of good information and the progress made in preventing phosphorus pollution over the last few decades, the ongoing problems with eutrophication, combined with concerns about peak phosphorus, indicate that more work is needed.

In order to ensure the security of Ontario's future food supply and the quality of fresh water, the ECO believes Ontario needs an over-arching policy framework for phosphorus management. As the cornerstone of this framework, the ECO suggests that OMAF adopt a phosphorus management hierarchy, similar to the "3Rs" hierarchy (reduce, reuse, recycle) that guides waste management policy in the province. Such a hierarchy might look like this:

1. **Reduce.** The first priority should always be to reduce the need for new phosphorus inputs by applying processes that increase timely phosphorus availability to plants (phosphorus made available only as plants need it), thus maximizing existing soil fertility. This can best be done by increasing soil organic matter (SOM) and optimizing beneficial biological processes in the soil.

2. **Retain.** The second priority should be to retain the phosphorus that is already in the soil through the implementation of BMPs that prevent the loss of phosphorus to the environment due to erosion or phosphorus saturation.
3. **Recycle.** The third priority should be to use recycled phosphorus in the form of plant residues, manures, sewage and residual food wastes (preferably composted, see discussion of SOM below) to meet demand for new phosphorus inputs.
4. **Replace.** Only when the first three options have been optimized should phosphorus from mineral sources be applied and, when it is, it should be applied as efficiently as possible to maximize plant uptake and minimize losses.

Creating a hierarchy of this type helps in setting priorities. As with the waste management hierarchy, source reduction should always be optimized first and foremost. This option is given very limited attention in OMAF's Phosphorus Primer; soil management techniques that focus on increasing timely phosphorus availability are not discussed in detail. Instead, the primer focuses primarily on ways to retain phosphorus on the farm, including: vegetated filter strips (strips of grassland designed and placed to capture nutrients and prevent run-off); constructed wetlands (areas designed to capture and convert nutrients to a stable organic form); and erosion control.

In addition, as the ECO has noted previously (see Chapter 2.11 of the ECO's 2011/12 Annual Report, Part 2), OMAF's educational materials are weak in one key area: a lack of attention to soil ecology. Beneficial microbes in the soil (collectively known as the soil food web) constitute the main agent controlling the availability of phosphorus to plants. Given that availability is the key issue – and that the soil food web makes phosphorus available at the right time and in the right place (the root zone) for the plant to use it most efficiently – major efforts should be focused on methods for strengthening the soil food web as an important means of reducing phosphorus requirements at source.

The ECO recognizes that the application of soil ecology to agriculture is a relatively new field and that the tools for manipulating the soil food web for beneficial purposes have not yet been fully developed. This would explain to some extent the relative absence of this approach in OMAF's documents. Nevertheless, many effective tools and methods have been developed by practitioners of organic and biological agriculture and the ECO continues to encourage OMAF to investigate these approaches and to adopt, adapt, and further develop practical tools for farmers so that they can take full advantage of these emerging opportunities.

In the meantime, it is well understood that the benefits of a healthy soil food web can be realized and enhanced by increasing the levels of SOM. This approach addresses phosphorus depletion and pollution concerns simultaneously. High SOM levels increase microbial biomass and biodiversity, which results in increased timely availability of phosphorus, particularly in root zones, where it will be taken up quickly by the plant, reducing fertilizer requirements and directly addressing the peak P issue. As an added benefit, an enhanced food web promotes better soil aggregation and structure, thus reducing erosion and retaining bound phosphorus on site, addressing phosphorus pollution issues.

Many of the soil-management BMPs promoted by the ministry (e.g., cover crops, crop rotations) are very likely to increase SOM; however, information regarding the rate at which these practices are being adopted is lacking, so there is no way to determine whether OMAF's efforts in this regard have been successful. Moreover, other SOM-building practices could be promoted more vigorously by OMAF. For example, composting of manure and/or biosolids prior to application has been shown to reduce phosphorus losses and to increase SOM levels over time. Increased SOM supports a larger and more diverse soil food web, which in turn increases timely phosphorus availability to plants. The new composting guidelines released in 2012 by the Ministry of the Environment should facilitate this practice (for more information, see Part 5.6 of this Annual Report); however, a more proactive approach by OMAF in this regard is necessary if composting is to become a routine practice for recycling phosphorus on farms.

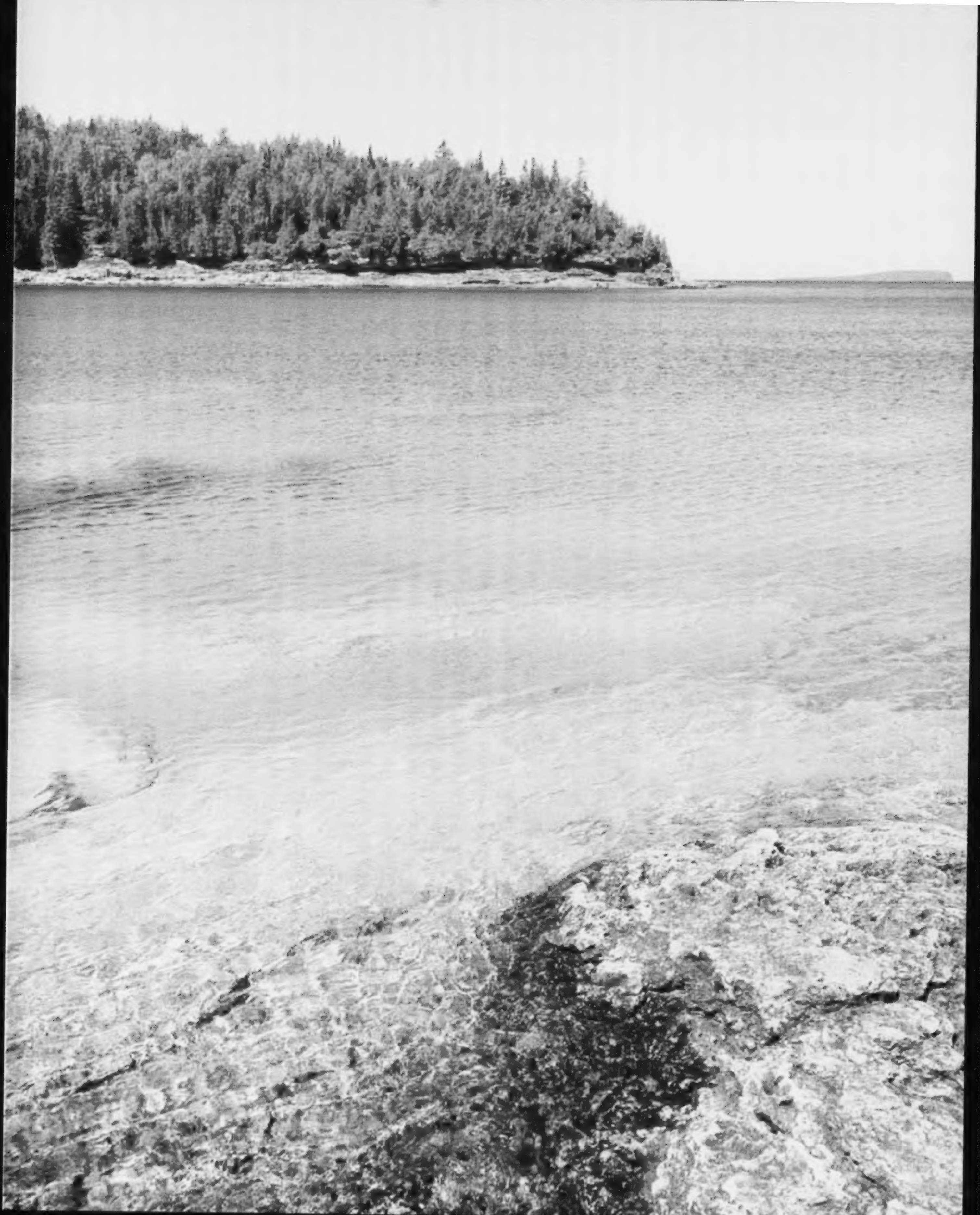
## ECO COMMENT

Ontario made significant progress on reducing phosphorus pollution in the 1970s and 1980s. However, ongoing water-quality problems clearly demonstrate both that the issue has not been permanently resolved and that phosphorus loadings from agriculture play a significant role. OMAF has developed educational materials for farmers; however, little information exists that would allow the success of these educational initiatives to be evaluated.

With respect to the potential depletion of mineral phosphorus reserves, the *Nutrient Management Act, 2002* and the 2012 update of the provincial composting framework are steps in the right direction as they facilitate the recycling of phosphorus from organic sources. Nevertheless, despite the fact that phosphorus fertilizer use has declined from very high levels in the 1970s and 1980s (due largely to the build-up of the nutrient in farm soils), Ontario farmers still use more mineral fertilizer P than recycled organic P in meeting their crop needs.

Ontario needs a comprehensive phosphorus strategy, one that integrates solutions for phosphorus pollution with concerns regarding phosphorus depletion. To this end, the ECO suggests that a phosphorus management hierarchy should inform all of OMAF's agricultural policy and programs, as well as its research and extension activities. For the sake of medium- to long-term food security, as well as a clean, healthy environment for future generations, Ontario cannot afford to keep wasting non-renewable resources while turning its aquatic ecosystems into a smelly, low-diversity version of an inedible P soup.

*For ministry comments, please see Appendix C.*



# 5 TAKING ACTION TO MANAGE AND PROTECT THE ENVIRONMENT

All the best scientific knowledge and carefully developed policies are meaningless if government fails to take action to implement and enforce those policies and programs. Ministries must follow through on their mandates with concrete action to meet the public's expectations to manage and protect the environment. This involves translating the broader policies they develop into actionable programs, implementing promised commitments, reviewing and refining outdated policies, and rigorously enforcing standards, rules and laws.

In this part of the Annual Report, the ECO reports on several program areas in which government appears to be taking positive action, such as pushing forward with a new compost framework, and implementing a new regulatory approach to managing waste pharmaceuticals in Ontario. The ECO also highlights several program areas where government action needs to be sustained. The ECO examines the Ministry of the Environment's renewed commitment to the Great Lakes, an environmental issue that urgently merits committed action. The ECO also calls on government to take action to address Ontario's legacy of abandoned mines, which pose significant environmental risks.

## 5.1 A Renewed Commitment to Great Lakes Protection

The Great Lakes are an integral part of life in Ontario: they provide drinking water to over 80 per cent of Ontarians; they help in the generation of 80 per cent of Ontario's electricity; they are home to over 4,000 species of fish, plants and wildlife; and they are at the heart of Ontario's economy. Containing nearly 20 per cent of the Earth's fresh surface water, and comprising over 10,000 kilometres of shoreline in Ontario, the Great Lakes also provide opportunities for a myriad of recreational activities.

Sadly, the health of the Great Lakes is under increasing threat from multiple and complex pressures, with some experts warning that they are at a "tipping point" of irreversible decline. In 2012, the Minister of the Environment took two major steps to respond to this crisis:

1. Introducing a proposed *Great Lakes Protection Act* (*GLPA*) – intended to protect and restore the ecological health of the Great Lakes, and create opportunities for individuals and communities to become involved in their protection and restoration; and
2. Releasing Ontario's Great Lakes Strategy (the "Strategy") – a set of goals and actions to keep the Great Lakes healthy now and for future generations.

The Strategy and proposed legislation represent the beginning of a new and invigorated long-term plan for protecting and restoring the Great Lakes in Ontario.

## Great Lakes Protection, Then and Now

The Great Lakes are under stress from a multitude of threats, many of them driven by population growth and development. Deposition of toxic chemicals and massive algal growth along shorelines degrade water quality of the lakes. Habitat loss, fragmentation and degradation, as well as the introduction of invasive aquatic species, also contribute to the loss of biodiversity. Finally, climate change – resulting in higher temperatures, reduced ice cover, increased evaporation, changing water levels (some lakes are at record low levels) and more extreme weather events – poses significant challenges for the Great Lakes ecosystem. All of these threats affect Ontarians' use and enjoyment of the Great Lakes, including the substantial economic benefits derived from them.

For decades, federal, provincial, state and municipal governments surrounding the Great Lakes have worked together to protect and restore them. In response to growing concern over algal blooms in Lake Erie in the 1960s, Canada and the United States (U.S.) signed the first Great Lakes Water Quality Agreement (GLWQA) in 1972. That agreement has been revised over the years – most recently in September 2012 – to reflect new and evolving challenges facing the Great Lakes.

Over the last 40 years, Ontario has also worked with the federal government through the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA), which was most recently renewed in 2007, to help Canada meet its obligations under the GLWQA (for more information, see the ECO's 2005/2006 Annual Report, pages 20-22, and Part 3.1 of the ECO's 2007/2008 Annual Report). Although the COA expired in June 2012, the Canadian and Ontario governments have committed to negotiating a new agreement.

Other agreements and initiatives, such as the Great Lakes Charter (1985) and Annex to the Great Lakes Charter (2001), the Great Lakes Binational Toxics Strategy (1997), the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (2005) and the Great Lakes-St. Lawrence River Basin Water Resources Compact (2008), have united Canada, the U.S. and the Great Lakes provinces and states in working to address environmental issues in the Great Lakes. Ontario, in collaboration with local, federal and binational organizations, has reported some successes in protecting and restoring the Great Lakes environment: phosphorus restrictions mandated under the GLWQA successfully reduced phosphorus loads and abated *Cladophora* algal growth in the early 1980s; historic releases of polychlorinated biphenyl (PCB) waste and mercury have been reduced by 90 per cent since 1993; and a reduction in the invasive sea lamprey has allowed for the rehabilitation of Lake Superior's lake trout and the economic recovery of some fisheries. Three of seventeen Areas of Concern (AOCs – areas identified as toxic hot spots) located in Canada or shared with the U.S. have also been cleaned up, while two AOCs are in recovery and several other AOC cleanups are in progress.

However, the Great Lakes continue to be threatened by new, ongoing and increased sources of stress. In Part 2.1 of the ECO's 2010/2011 Annual Report, we outlined a number of actions that Ontario could unilaterally initiate to improve Great Lakes health within the existing legislative and policy framework, such as: minimizing discharges from combined sewer overflows; curbing the effect of agricultural and urban runoff on the water quality of public beaches; involving a broader range of ministries in Great Lakes restoration and protection activities; and championing the Great Lakes through public engagement opportunities. In that report, the ECO urged the provincial government to seize the opportunity to engage the many solutions that lie within its own powers.

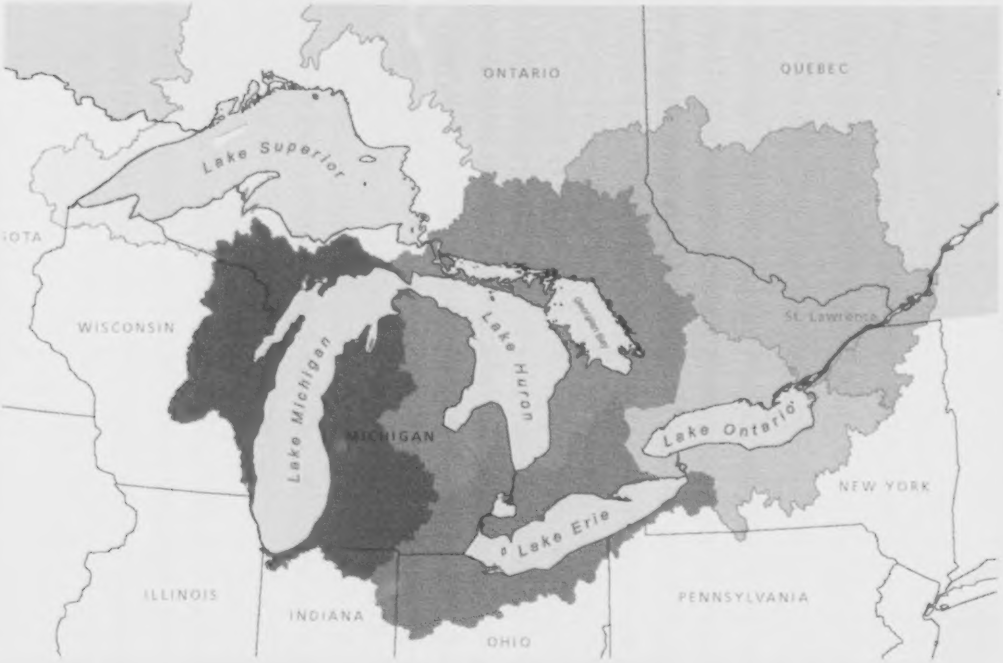


**FIGURE 5.1.1.**

The Great Lakes and their watersheds. (Source: Ministry of Natural Resources, 2009.)

## New Long-Term Planning for the Great Lakes in Ontario

The Great Lakes initiatives launched in 2012 were developed, in part, based on public feedback on a discussion paper entitled Healthy Great Lakes, Strong Ontario. The discussion paper, released in 2009 by the Ministry of the Environment (MOE) in co-operation with the Ministry of Natural Resources and the then-named Ministry of Agriculture, Food and Rural Affairs, anticipated the upcoming renewal of the GLWQA and COA and the need to develop a long-term vision of sustainability for the Great Lakes.

Healthy Great Lakes, Strong Ontario was posted on the Environmental Registry (#010-6105) for a 59-day public consultation period. The discussion paper provided the government's high-level vision for the Great Lakes, proposing five long-term goals and outlining some broad strategies for achieving the proposed goals. MOE finally posted a decision notice on the Environmental Registry more than three years later, in conjunction with the release of the proposed *GLPA* and the draft Strategy, which provided considerably more detailed plans of action for the Great Lakes.

*For a detailed review of Healthy Great Lakes, Strong Ontario, please see Section 1.1 of the Supplement to this Annual Report.*

### *Proposed* Great Lakes Protection Act

On June 6, 2012, Bill 100, the *Great Lakes Protection Act, 2012* received First Reading in the Ontario Legislature. At that time, MOE also posted the proposed *GLPA* on the Environmental Registry (#011-6461) for a 62-day public consultation period.

However, Bill 100 died on the order paper in October 2012 when the provincial Legislature was prorogued. In February 2013, shortly after the Ontario Legislature resumed sitting in a new session, the Minister of the Environment re-introduced the proposed *GLPA* as Bill 6, the *Great Lakes Protection Act, 2013*. MOE also updated the proposal notice on the Environmental Registry to allow for a new 60-day public review and comment period on the re-introduced (and slightly revised) bill.

The purposes of the proposed *GLPA* are: to protect and restore the ecological health of the Great Lakes-St. Lawrence River basin; and to create opportunities for individuals and communities to become involved in the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River basin. These purposes include:

1. To protect human health and well-being through the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin;
2. To protect and restore wetlands, beaches, shorelines and other coastal areas of the Great Lakes-St. Lawrence River Basin;
3. To protect and restore the natural habitats and biodiversity of the Great Lakes-St. Lawrence River Basin; and
4. To advance science relating to existing and emerging stressors, such as climate change, that improves understanding and management.

Key aspects of the proposed *GLPA* include:

- Establishing a Great Lakes Guardians' Council, representing a range of interests, to: identify priorities for actions to achieve the purposes of the proposed Act; identify potential funding measures and partnerships; facilitate information sharing; and convey input to the Minister of the Environment on various matters, including the establishment of Great Lakes targets and the development and implementation of geographically-focused initiatives under the Act.

- Requiring the Minister to maintain the Great Lakes Strategy, to ensure a review of the Strategy is undertaken every six years (as required by the Strategy) and to require progress reporting "from time to time" on actions taken under the Strategy. Curiously, this does not align with a commitment in the Strategy itself to provide progress reports on key results every three years. The proposed *GLPA* also sets out required contents of the Strategy.

- Empowering (but not requiring) the Minister to establish qualitative or quantitative Great Lakes targets to achieve one or more purposes of the proposed Act.
- Creating a process for the Minister to require a public body (e.g., a ministry, government agency, municipality, local board, conservation authority, source protection authority or source protection committee) to develop proposals for and, subject to Cabinet approval, prepare and implement geographically-focused initiatives to achieve the purposes of the Act.
- Enabling First Nations and Métis communities that have a historic relationship with the Great Lakes to offer their traditional ecological knowledge for the purpose of assisting with anything done under the proposed Act.

Additionally, the proposed *GLPA* specifically characterizes the Strategy, any targets established under the proposed Act, and any proposals for initiatives and approved initiatives under the proposed Act as "policies" for the purposes of the *EBR* – a proactive measure that should ensure these documents, if created, are posted for public consultation on the Environmental Registry. As of May 2013, Bill 6 had not yet received Second Reading in the Legislature. The ECO will review the *GLPA*, if passed into law, in a future annual report.

## Ontario's Great Lakes Strategy

A draft Great Lakes Strategy was posted on the Environmental Registry (#011-6418) on the same day in June 2012 as the original proposed *GLPA*, also for a 62-day public comment period. Originally, the creation of the Strategy was mandated by the proposed *GLPA*. However, after Bill 100 died, MOE decided to finalize the Strategy as a stand-alone policy document.

The Strategy, finalized in December 2012, includes a vision statement for the Great Lakes: "Healthy Great Lakes for a stronger Ontario – Great Lakes that are drinkable, swimmable and fishable." It establishes six Great Lakes goals to achieve that vision (see Table 5.1.1.), outlines Ontario's priorities for action for each goal, lists 113 future actions to address those goals and identifies six guiding principles for achieving the Great Lakes goals.

TABLE 5.1.1.

Ontario's Great Lakes Goals (Source: Ontario's Great Lakes Strategy, Government of Ontario, December 2012).

| Great Lakes Goals | Description |
|---|---|
| Engaging and empowering communities | To create opportunities for individuals and communities to become involved in the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River basin. |
| Protecting water for human and ecological health | To protect human health and well-being through the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River basin. |
| Improving wetlands, beaches and coastal areas | To protect and restore wetlands, beaches, shorelines and other coastal areas of the Great Lakes-St. Lawrence River basin. |
| Protecting habitats and species | To protect and restore the natural habitats and biodiversity of the Great Lakes-St. Lawrence River basin. |
| Enhancing understanding and adaptation | To advance science relating to existing and emerging stressors, such as climate change, that improves understanding and management of the Great Lakes-St. Lawrence River basin. |
| Ensuring environmentally sustainable economic opportunities and innovation | To enrich the quality of life in communities in the Great Lakes-St. Lawrence River basin through support of environmentally sustainable economic opportunities and innovation and through environmentally sustainable use of natural resources. |

MOE was responsible for consulting the public on the Strategy; however, the actions to be carried out under the Strategy are to be led by a vast team of ministries. While the Strategy lacks any targets or deadlines for specific actions, it establishes performance measures or "key results" that will be monitored for each goal. As mentioned above, the Strategy includes a commitment to reporting on key results every three years, and to reviewing the Strategy itself every six years.

*For a detailed review of Ontario's Great Lakes Strategy, please see Section 1.4 of the Supplement to this Annual Report.*

## ECO COMMENT

The ECO is pleased that MOE did not use last fall's prorogation of the Legislature as an excuse to delay much-needed action on the Great Lakes. Finalizing the Strategy independently of the *GLPA* – as well as re-introducing the proposed *GLPA* at the earliest opportunity – sends a strong signal to Ontarians that the government is committed to establishing and moving forward with a long-term plan of action for protecting and restoring the Great Lakes. More than four years after the initial discussion paper was released, Ontario cannot afford to lose momentum – again – on this important issue.

The ECO is pleased that the government has developed many ideas for advancing its priorities in the Great Lakes, and that it has integrated a process of program evaluation – critical to assessing

## Great Lakes Guardian Community Fund

On July 24, 2012, the Ontario government announced the creation of the Great Lakes Guardian Community Fund. The annual $1.5 million fund makes grants of up to $25,000 per project to help community groups, non-profit organizations and First Nations and Métis communities protect and restore the Great Lakes. The program supports up to 100 per cent of the cost of projects in Ontario within the Great Lakes-St. Lawrence River basin that contribute to at least one of the following goals: protecting water quality for human and ecological health; improving wetlands, beaches and coastal areas; and protecting habitats and species.

The use of the fund to finance small-scale community projects to restore and protect the Great Lakes was identified in the Strategy as a way to engage and empower communities.

MOE has established eligibility criteria for projects that may receive funding, as well as criteria for costs that may be covered by the fund. According to MOE, "only projects with a direct environmental benefit that result in measureable environmental improvements will be funded."

The 80 recipients of funding for 2012 received as little as $1,072 (awarded to a Scout troop to remove garbage from streams and marshes and encourage youth to use freshwater resources for recreation) to the maximum of $25,000 (e.g., to a conservation foundation to create four wetland areas, install interpretive signage and clear nature trails). Applications for 2013 Great Lakes Guardian Community Fund grants were due by April 26, 2013.

how well the plan is working – into the Strategy. The ECO is also gratified to see that the Strategy addresses, at least in part, many of the suggestions we made for engaging solutions for the Great Lakes in Part 2.1 of our 2010/2011 Annual Report.

Under the Strategy, MOE and other ministries are in a position to move forward with actions to protect the Great Lakes now. However, the Strategy's lack of targets and implementation planning mean there is little assurance that this will happen. The ECO urges MOE, together with its partner ministries, to develop and share with the public a detailed implementation schedule that outlines exactly who will do what, and when, for each of the Strategy's priorities for action. The implementation schedule should also outline dates and responsibilities for monitoring progress and reporting on that work and, ideally, identify targets to be achieved within each three-year reporting timeframe. Such a schedule will provide the transparency and accountability needed to assure the public that the Strategy will indeed lead to immediate and measurable action on the Great Lakes. The ECO also encourages MOE to post all progress reports on the Environmental Registry.

The ECO is encouraged that the proposed *GLPA* takes the *EBR* into account. If and when it becomes law, MOE should act immediately to fully prescribe the *GLPA* under the *EBR* so that the public is afforded all available rights to participate in future decisions about the Great Lakes. Given what is at stake, Ontarians have the right to demand bold action from the government, and to be engaged in the process moving forward to protect and restore this treasured aspect of our provincial identity.

*For ministry comments, please see Appendix C.*

## 5.2 Expansion of MOE's Environmental Activity and Sector Registry

In Ontario, the Ministry of the Environment (MOE) is responsible for protecting the air, land and water, with the goal of ensuring healthy communities, ecological protection and sustainable development now and into the future. One of MOE's core functions is to regulate certain activities that affect the environment, such as emissions to air, discharges to sewage systems, and waste disposal. Such activities are generally regulated through the issuance of approvals that allow the activities to proceed subject to various conditions. Until recently, all approval applications – approximately 6,500 are submitted per year – were individually reviewed and evaluated by ministry staff.

In 2011, in response to an ongoing backlog of approval applications, MOE adopted a new, two-tiered framework for environmental approvals. While most activities continue to require an approval (called an "Environmental Compliance Approval" or ECA), select activities considered to be "lower-risk, standard or less-complex in nature" are now regulated through a registration process (also known as permit-by-rule). Under the registration process, anyone who wishes to engage in a prescribed activity must satisfy the regulatory eligibility criteria and register with the ministry in order to lawfully undertake that activity. To maintain their registration, the registrant must operate in accordance with any requirements set out in the regulation prescribing the activity.

The ECO reviewed this new framework, known as the modernization of MOE's approvals process, in Part 5.2 of our 2010/2011 Annual Report.

### The Environmental Activity and Sector Registry (EASR)

To allow for registration of prescribed activities and sectors, MOE established a new web-based Environmental Activity and Sector Registry (EASR). A proponent must register their activity in the EASR through Ontario's online ONe-Source for Business portal. Once a proponent registers their activity, information about their registration (e.g., business name, address, date of registration, project type and registration status, as well as a copy of MOE's Confirmation of Registration) becomes publicly accessible and searchable on MOE's Access Environment website.

### Activities Added to the EASR

When the modernized approval system was implemented in 2011, Cabinet initially prescribed just three activities/sectors for the purposes of EASR registration: automotive refinishing; heating systems; and standby power systems.

In January and April 2012, MOE posted two policy proposal notices on the Environmental Registry (#011-4926 and #011-5695) to consult the public on potentially prescribing additional activities for the purposes of the EASR, including: waste collection and transportation; ready-mix concrete manufacturing; lithographic, screen and digital printing; concrete product manufacturing; small ground-mounted solar; on-farm anaerobic digestion; and landfill gas electricity generation.

In July 2012, in a second stage of public consultation, MOE posted a regulation notice on the Environmental Registry (#011-6567) proposing to prescribe, for purposes of the EASR, three of the activities proposed in the January and April discussion papers: (1) small ground-mounted solar; (2)

lithographic, screen and digital printing; and (3) non-hazardous waste transportation systems. It also proposed amendments to the existing EASR regulation for standby power systems.

In November 2012, MOE posted a decision notice explaining that it had decided to prescribe all three new activities and amend the existing requirements for standby power systems. The new regulations – O. Reg. 350/12 (Solar Facilities), O. Reg. 349/12 (Printing), O. Reg. 351/12 (Waste Management Systems) and O. Reg. 346/12 (Heating Systems and Standby Power Systems) – came into force on November 18, 2012. Each regulation includes design and operating specifications and technical requirements specific to the prescribed activity.

## Compliance Monitoring of EASR Registrants

MOE has indicated that it will ensure compliance with regulatory requirements for EASR registrants by providing guidance, using a post-registration quality assurance process and, when needed, taking steps to bring facilities into compliance. MOE is also planning to undertake annual audits of specific activities/sectors once sufficient numbers of registrations are reached. Finally, MOE will continue to use its general complaints-based abatement and enforcement approach for EASR-registered facilities.

## Administrative Burden Eased for More Proponents

These changes should make doing business in Ontario easier for eligible proponents of the newly prescribed activities. MOE has reported that approval times for prescribed activities have been reduced "from months to minutes" as applicants no longer need to submit applications for individual ministry review, which often resulted in lengthy delays. According to MOE, businesses can also save up to $25,000 per registration, as the costly studies that were required to accompany individual approval applications have been replaced with up-front technical requirements.

Nevertheless, EASR registrants continue to have obligations akin to a holder of an ECA. Much like individualized ECAs, the regulations contain mandatory "activity requirements" covering operational specifications, as well as provisions for such matters as personnel training, record-keeping and handling complaints from the public. Moreover, MOE asserts that the regulations for prescribed activities – developed by looking at standards in other jurisdictions, consulting industry and technical experts, and undertaking extensive technical work and modelling – generally require adherence to higher standards than did site-specific approvals.

## More Actors Regulated Overall

MOE reported that as of January 2013, approximately 50 per cent of the more than 2,000 registrants in the EASR system were "new clients" – proponents that previously operated without an approval or, in some cases, proponents that are new to Ontario. As a result, a greater percentage of players involved in regulated activities in Ontario are on MOE's radar and should be operating within the parameters established by the ministry to protect the environment.

## Ministry Can Focus Resources on Regulating More Harmful Activities

MOE has limited resources to meet the significant demands of Ontario's environmental approvals process (for more information about MOE's capacity, see Part 2.3 of this Annual Report). Moving more activities to the EASR process should, in theory, allow MOE to focus more of its staff and budgetary resources on reviewing a smaller number of approval applications for activities that have a greater potential to harm the environment. While MOE acknowledges that the EASR has not yet resulted in significant reductions in backlogs or turnaround times for ECAs, the ministry is confident that reductions will come as the ministry develops modifications to the system to allow businesses to register multiple activities under a single registration, and as the ministry continues to make more activities eligible for the EASR.

## Fewer Opportunities for Public Participation

The EASR process eliminates the public's rights under the *Environmental Bill of Rights, 1993* (*EBR*) to comment on and/or seek leave to appeal approvals of individual facilities now subject to EASR registration. While this is somewhat tempered by the public's opportunities to comment on proposals to prescribe activities for purposes of the EASR, as well as the accessibility of EASR registration information on MOE's website, the EASR nevertheless represents a step back for public participation under the *EBR*.

## Additional EASR Activities Proposed

On November 30, 2012, MOE posted a policy proposal notice on the Environmental Registry (#011-6615) to consult the public on the proposed addition of three more activities for purposes of the EASR: (1) small electricity generators; (2) evaporative cooling equipment (cooling towers); and (3) dust collection systems at retail locations.

On April 16, 2013, MOE posted a notice on the Environmental Registry (#011-8592) to consult the public on a proposed regulation that would prescribe landfill gas power generation facilities for purposes of the EASR. Landfill gas electricity generation was one of the activities suggested in MOE's policy proposal notice and accompanying technical report in April 2012 (Environmental Registry #011-5695).

As of July 2013, MOE had not yet made a decision on these proposals.

## ECO COMMENT

The ECO is encouraged by MOE's ongoing work on approvals modernization. The ministry appears to be striking an appropriate balance between reducing the administrative and financial burden on proponents of certain lower-risk environmental activities, gradually redirecting its own resources to focus on higher-risk activities, and – most importantly – continuing to impose high regulatory standards to protect the environment from harmful activities.

The ministry's two-step process for prescribing new EASR activities and sectors is laudable. By building in an early stage of policy-based consultation on potential activities/sectors, MOE gives the public an opportunity to comment before the government becomes too entrenched in a particular course of action. Providing a second stage of public consultation on draft regulations then allows members of the public to convey their thoughts about the specific regulatory requirements proposed by the ministry.

With more activities falling under the EASR system, it is increasingly important that the ministry has a solid plan for monitoring and enforcing compliance. The ECO is pleased that MOE is undertaking quality assurance of all new registrations and planning an annual audit process for individual sectors. As the ECO noted in our 2010/2011 Annual Report, the EASR system should be accompanied by a strong inspection program to ensure that registrants comply with their ongoing regulatory obligations.

Many stakeholders were skeptical when MOE first initiated regulatory modernization in 2010, concerned that the process would simply allow certain activities to harm the environment with less government oversight. While it is still too soon to appreciate the full implications of using a permit-by-rule system for some activities, early indications suggest that the program is on the right track. At a minimum, more facilities are coming under the regulatory oversight of the ministry, and EASR registrants continue to be subject to high standards of environmental protection even as their administrative burden is alleviated. The ECO hopes that MOE will follow through with an effective process for monitoring and enforcing compliance to ensure that EASR registration ultimately provides at least the same level of environmental protection as the individual approvals process.

*For a more detailed review of this decision, please refer to Section 1.6 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 5.3 Plans and Permits: New Requirements for Early Mineral Exploration

Much has changed since Ontario's *Mining Act* was enacted in 1869, including land use planning provisions, mining technologies, business practices, stakeholder consultation and environmental principles. In 2009 – following repeated calls for legislative revision by stakeholders, the public and the ECO – the government amended the Act to reflect these changed times (for the ECO's review of the *Mining Amendment Act, 2009*, see Part 5.1 of the ECO's 2009/2010 Annual Report). Among other things, the 2009 amendments to the *Mining Act* introduced requirements that proponents of early exploration activities submit an "exploration plan" to the Director of Exploration (the "Director") at the Ministry of Northern Development and Mines (MNDM) before undertaking certain activities, while an "exploration permit" would be required to undertake higher impact activities. However, the Act left it to future regulations to specify the activities requiring an exploration plan or permit, as well as the details regarding those plans and permits.

Three years later, in November 2012, MNDM filed a number of regulations that implement provisions in the Act. These included O. Reg. 308/12 (Exploration Plans and Exploration Permits), which specifies requirements for early exploration activities.

### General Requirements and Standards for Early Exploration

Regardless of whether an exploration plan or permit is required, O. Reg. 308/12 specifies that proponents of early exploration activities must: keep sites clean and safe; keep roads and trails unobstructed; remove refuse, fuel drums, equipment and other material; and comply with the Provincial Standards for Early Exploration (the "Standards"), a policy document incorporated by reference into the regulation. The Standards include requirements for carrying out exploration plan and permit activities, as well as for undertaking rehabilitation following such activities. While several of the Standards require warning signs and barriers designed to prevent human injury, some offer environmental protections (e.g., storing drill core samples farther than 30 metres from permanent water bodies and waterways).

### Exploration Plans

Under O. Reg. 308/12, proponents must submit an exploration plan to carry out: geophysical surveys requiring a generator; mechanized drilling involving equipment weighing less than 150 kilograms (kg); line cutting less than 1.5 metres (m) in width; mechanized surface stripping of a single location, or multiple locations within 200 m of each other, with a total area less than 100 square metres; or pitting and trenching a single pit/trench, or several pits or trenches within 200 m of each other, with a total volume between 1-3 cubic metres.

Proponents must inform surface rights owners of their intent to submit an exploration plan, and are encouraged to provide advance notification to Aboriginal communities. Once the plan is submitted, the Director must identify potentially affected Aboriginal communities, send them the plan and provide them the opportunity to submit written comments regarding any adverse effects the plan's proposed activities may have on their existing or asserted Aboriginal or treaty rights. The Director may require proponents to consult with Aboriginal communities that raise concerns about potential adverse effects. Unless the Director determines that an exploration permit is required – or unless a proponent withdraws or makes adjustments to a submitted plan – a proponent may commence the plan's activities 30 days after the Director circulates the plan to Aboriginal communities. While exploration plans do not need ministry approval, MNDM reviews them for completeness.

The regulation specifies that proponents must: comply with general requirements for early exploration activities; comply with the Standards; and conduct exploration plan activities in a manner consistent with Aboriginal and treaty rights and in accordance with the plan. Exploration plans are effective for a maximum period of two years.

## Exploration Permits

An exploration permit is required to conduct activities that exceed the parameters specified for plan activities but are still below the thresholds for advanced exploration set out in O. Reg. 240/00, Mine Development and Closure under Part VII of the Act. (Proponents of advanced exploration activities must file with MDNM a certified closure plan with financial assurance to cover the costs of rehabilitation.) A Director also has discretion to require a permit under limited circumstances (e.g., to address Aboriginal or treaty rights issues), and to waive any of the terms and conditions that would otherwise apply to exploration permits. Like exploration plans, permit applications are subject to requirements for notifying surface rights owners and notifying/consulting Aboriginal communities.

If the Director is satisfied that appropriate Aboriginal consultation has been undertaken, within 50 days of a permit application being circulated, the Director shall: decide whether to issue a permit; determine the applicable terms and conditions; and send a copy of the permit to the proponent, surface rights owners who commented on the application and any identified Aboriginal communities. The Director, however, may temporarily suspend the process for a number of reasons.

As with exploration plan activities, permit holders must comply with general requirements for early exploration, comply with the relevant Standards, conduct permit activities in a manner consistent with Aboriginal and treaty rights, and comply with any terms and conditions in the permit. Exploration permits are effective for a maximum period of three years, although a Director may amend or renew an exploration permit on application by the proponent. The regulation also outlines parameters for a dispute resolution process to facilitate consultation among early exploration proponents, Aboriginal communities and the Director. Exploration permits are prescribed as classified instruments under the *Environmental Bill of Rights, 1993* (*EBR*), and so must be posted on the Environmental Registry for public comment.

# IMPLICATIONS OF THE DECISION

Prior to the filing of O. Reg. 308/12, proponents were free to undertake early exploration activities without having to inform MNDM, notify potentially affected Aboriginal communities or surface rights owners, or follow any exploration-specific standards or guidelines. The regulation creates a new, earlier stage of screening, notification, consultation and operational requirements that did not previously exist. Together with recently increased penalties for offences under the Act, provisions implemented by the regulation should help mitigate some of the environmental impacts of mineral exploration, for example:

- The general requirements for early exploration activities should ensure that sites are kept clean of materials that could contaminate the environment.
- Specific requirements in the Standards should help prevent the contamination of water bodies, as well as the mixing of overburden (the rock and subsoil that lies above a mineral deposit) with waste rock, a practice that can hinder plant establishment when soil is re-spread during rehabilitation.
- Requirements to circulate and consult on exploration plans and permits should help identify and pre-emptively address potential environmental issues.

Activities that require an exploration permit – as opposed to an exploration plan – require ministry approval, and are subject to terms and conditions determined appropriate by the Director, as well as minimally different requirements in the Standards. However, those activities subject to an exploration permit and those subject to a plan are differentiated only by their relative scale (e.g., the weight of drilling equipment, the area stripped, the volume of the pit or trench, etc.). Other potentially significant factors play no role in determining whether a permit is required, such as: geographic location; proximity to residences; the environmental sensitivity of an area; and the potential for environmental impacts (e.g., wildlife disturbance, the loss and fragmentation of significant wetlands or habitat, impacts on groundwater flow or surface water quality, etc.). As a result, exploration plan activities in ecologically sensitive areas are not subject to the potentially mitigating terms and conditions that exploration permits can provide.

Ontario residents previously had no opportunity to formally comment on early exploration activities. However, exploration permits are now prescribed under the *EBR*, providing the public the opportunity to: comment on proposed exploration permits via the Environmental Registry; request that MNDM review an approved permit; and request that MNDM investigate alleged contraventions of an approved permit. These opportunities increase transparency and involve the public in potentially environmentally significant decisions, which can result in improved environmental protection.

Exploration plan proposals, however, are not prescribed under the *EBR* and, therefore, are not subject to the same public participation opportunities and ECO oversight as proposals for permits. Moreover, the Director of Exploration's ability to elevate an exploration plan to a permit is primarily confined to addressing Aboriginal concerns; the Director does not have the authority to elevate a plan to address other issues, including environmental concerns. As a result, even if members of the public have legitimate concerns about the potential environmental impacts of exploration plan activities, they are not subject to the public participation processes and potentially mitigating terms and conditions that permits afford.

## PUBLIC PARTICIPATION & *EBR* PROCESS

Supporters and opponents of the amendments expressed differing, but equally passionate, opinions on the proposed regulation and Standards. Environmental organizations raised concerns that: some activities should be subject to a permit rather than a plan; an Environmental Impact Statement should be a requirement of an exploration permit application; and MNDM should have the discretion to elevate a plan to a permit. Prospectors argued that many of the proposed changes would create red tape, imposing huge consultation costs, long delays and uncertainty that would strangle exploration, stifle investment and devastate prospectors' livelihoods. While contrasting opinions were offered on several issues, many groups expressed the opinion that the provincial government must resolve outstanding Aboriginal land claims, take responsibility for consulting Aboriginal communities and define the parameters of consultation.

In response, MNDM made some minor changes to the regulatory amendments. To address concerns about lack of clarity around Aboriginal consultation, MNDM indicated that it had developed an operational policy detailing the respective consultation roles and responsibilities of the ministry, the proponent and Aboriginal communities.

## ECO COMMENT

The ECO applauds MNDM for creating a new stage of screening, notification, consultation and regulatory oversight for early exploration activities. Nevertheless, the ECO is disappointed that the environmental protections provided by the graduated regulatory scheme are not as robust as they could be. To ensure environmental protection, the ECO believes that the criteria for requiring an exploration permit (with its increased consultation requirements and Director's terms and conditions) should not be limited only to the scale of the activity, but should also involve other considerations, particularly the ecological significance and sensitivity of the area. In the absence of such environmentally related criteria, the ECO is extremely disappointed that the regulation fails to give the Director (or even the Minister of Northern Development and Mines) the authority to elevate an exploration plan to a permit on the basis of environmentally significant or publicly raised concerns. Although the *Mining Amendment Act, 2009* expanded the list of land types withdrawn from staking, some potentially ecologically important areas (including conservation areas, significant wetlands and woodlands) were not included and so are still vulnerable to the impacts of early exploration. While the best solution would be for the government to proactively identify and withdraw lands with significant ecological values, in the absence of this pre-emptive approach, the provincial government – the steward of Ontario's shared resources – should have the discretion to require a permit and impose necessary terms and conditions to minimize environmental impacts.

Many commenters from the mining industry denounced the requirements in O. Reg. 308/12 as financially and logistically arduous. However, the intent of these rules is to create a formal, transparent framework, as well as to reduce uncertainties that can cause expensive and prolonged delays in mineral exploration. While some believe that Ontario's Crown land should be completely open to staking and exploration with little or no limitation, Ontario's natural resources belong to all of us – not just a select few – and so must be sustainably managed by the province for the public good. Just as MNDM has a mandate to encourage a thriving mining industry, the government has an equally important role safeguarding the health of Ontario's natural resources. Ultimately, this requires the province taking responsibility for identifying vulnerable areas of ecological significance and then imposing any conditions or restrictions necessary to protect them.

*For a more detailed review of this decision, please refer to Section 1.17 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 5.4 Rehabilitating Abandoned Mines

Prospecting and mining have played an important role in Ontario's history. Since the first gold rush near Madoc in Hastings County in 1866, the discovery and production of valuable metals and minerals has continued apace. And while the mining industry has brought significant economic and employment opportunities to the province, an unfortunate legacy is that numerous mine sites were abandoned when operators went bankrupt or simply walked away when finished mining the resources. During the early years, a lack of knowledge about the physical and chemical risks that could develop, combined with weak (or non-existent) environmental standards, contributed to this historic problem.

Scattered across central and northern Ontario, 5,741 abandoned mine sites have been identified by the Ministry of Northern Development and Mines (MNDM). While a large percentage of these sites are privately held, approximately one-third have reverted to the Crown. MNDM has indicated that 2,470 of the Crown- and privately-held sites could potentially pose a hazard to public health, safety or the environment. These sites range from small mine shafts that require minimal rehabilitation to large sites with significant impacts (e.g., acid mine drainage, metal leachate, etc.) that can cost millions of dollars to rehabilitate.

Over the years, concerns about the safety and environmental risks posed by abandoned mines have come to the fore. Perhaps most notably, the severe environmental degradation caused by acid mine drainage from the mine tailings and waste rock historically dumped at the Kam Kotia mine focused public and governmental attention on the challenges posed by abandoned mines (see box on the status of the Kam Kotia Rehabilitation Project).

## Status of Kam Kotia Rehabilitation Project

On an intermittent basis between the 1940s and 1972, copper, zinc, silver and gold were extracted and processed at the Kam Kotia mine near Timmins. As a by-product of these operations, six million tonnes of high sulphide tailings were deposited in three – mainly unenclosed – tailings areas that spread across more than 500 hectares. When exposed to air and water, the sulphide-bearing tailings oxidize and produce sulphuric acid, which dissolves and releases metals (including lead, zinc, copper, arsenic and mercury) into groundwater and surface waters. Not only does this pollute the water, but aquatic life and habitats can also be degraded and destroyed.

Subsequently abandoned, the site's surface and mining rights were forfeited to the Crown in 1988. In the fall of 2000, $9 million from the newly announced Abandoned Mines Rehabilitation Program was earmarked to finance the initial cleanup of the site. At the time, the ECO expressed concern that remediation would cost significantly more, and that the funding required to address both the safety and environmental issues should be allocated separately in order to gain better clarity regarding the environmental cost alone.

A five-phase rehabilitation plan was subsequently developed that projected more than $41 million would be required. As part of this work, both a lime addition treatment plant (to neutralize the acidity of the waste) and a 3.2 kilometre impermeable dam (to contain the waste) have been constructed. By March 2004, 951,000 cubic metres of tailings had been moved to the impoundment area. Rehabilitation activities have continued over the subsequent years and, in 2012, more tailings were relocated to the impoundment area. In 2013, further work is planned, including studies to test water quality and revegetation options for the reclaimed areas. To date, $65.6 million has been spent and a further $13.5 million will be required for future work – a total of $79.1 million, almost double the initial $41-million estimate.

Overall, the ECO applauds the long-term commitment that MNDM has shown in rehabilitating Kam Kotia. As one of Canada's most contaminated abandoned mine sites, it has proven to be a more challenging and expensive endeavour than originally foreseen. Despite the significant effort shown by MNDM, however, the book is far from being closed; mining waste can continue to generate contaminants long into the future, and the treatment of such waste is expensive. Of the original $41-million estimate, almost $10 million was allocated for the treatment of effluent for the next 50 years. As such, the complete story on this mine will continue to unfold for many years to come.

MNDM's recent annual reports describe their rehabilitation efforts as being very successful "in eliminating or reducing environmental and physical safety hazards" and, according to the ministry, more than 75 abandoned mine sites have now been rehabilitated. Ongoing problems, however, continue to be identified. In November 2012, for example, the Ministry of the Environment (MOE) confirmed that water samples taken from Long Lake near Sudbury contain high levels of arsenic – a human carcinogen – because of tailings from a nearby abandoned gold mine. As a result, the ECO has undertaken a review of the current status of government efforts to rehabilitate Crown-held abandoned mines.

## Development of the Abandoned Mines Database and Rehabilitation Program

In the late 1980s, MNDM developed the Abandoned Mines Information System (AMIS), a database of known abandoned and inactive Crown- and privately-held mine sites. In 1999, the provincial government initiated the Abandoned Mines Rehabilitation Program (AMRP) and committed $27 million over four years to assess and restore Crown-held abandoned sites. The rehabilitation program received additional funding of $41 million in 2003 to cover a subsequent four-year period, with a further $60 million announced in the 2006 budget to be spent over six years.

As of 2005, the abandoned mines database contained basic information for over 5,600 mine sites. At that time, MNDM estimated that approximately 250 of those sites "may pose an environmental risk due to the potential for the leaching of minerals and other contaminants from mine tailings." In a review conducted that year, however, the Auditor General of Ontario reported that the abandoned mines database was incomplete. According to the Auditor, while assessments of all known abandoned mine sites had been conducted in 1993 and 2000, approximately half of the 3,800 assessments completed in 2000 had not been entered into the database, and the database was missing information on chemical contamination – a significant omission.

The Auditor also concluded that the ministry lacked an overall, long-term strategy for managing, monitoring and rehabilitating abandoned sites. A recommendation was made, therefore, that such a strategy be developed, and that it include an update with regard to the funds required, a ranking system that prioritizes all sites based on risk, and a clear timeframe for completing the work given the level of funding that could be anticipated.

In a follow-up review in 2007, the Auditor found that all missing information gathered during site assessments conducted in 2000 had been entered into the database, along with all available information regarding the chemical contamination of abandoned sites. For the approximately 250 sites believed to pose a potential risk due to leaching and mine drainage, the ministry had determined that 96 sites (both Crown- and privately-held) would require an additional detailed assessment to obtain a clearer picture of the hazards they represented. These assessments were subsequently conducted in 2007 and 2008.

## Classification and Priority Ranking System

Over the years, MNDM worked towards developing a priority ranking system to categorize mine sites based on the risk they posed to the environment, public health and safety. Finalized in 2007, the classification and priority ranking system forms a critical step toward developing an appropriate response strategy to address abandoned mine rehabilitation.

Each site is classified into one of four categories (Class A, B, C or D) based on the degree of potential risk each poses to overall public health and safety, and the environment. Class A sites represent the highest concern due to the presence of large tailings ponds, as well as waste rock piles with acid rock drainage. Class B sites also produce acid rock drainage, but have smaller tailings ponds. Within each classification group, each site is then ranked with regard to environmental considerations and public safety. The environmental category contains six subcategories: proximity to water bodies; water accumulations and discharges; location of tailings; waste rock; ecological impacts; and human health. Sites do not need to be ranked if, for example, they are already covered by an accepted mine closure plan, have a recognized progressive rehabilitation plan in place, are covered by other legislation (such as the *Aggregate Resources Act*), or are categorized as a Class D site and, therefore, pose a low risk.

## Current Status of the Abandoned Mines Rehabilitation Program

There are currently six Class A (i.e., highest concern) sites held by the Crown, one site held largely by private entitles with a small Crown-held portion, and 13 privately-held Class A sites. The Crown-held sites are: Kam Kotia, Deloro, Steep Rock, Adams, Griffith, South Bay and portions of the ERG tailing site (see Figure 5.4.1). The first three sites are already undergoing rehabilitation efforts by MNDM, MOE and the Ministry of Natural Resources, respectively. The Adams and Griffith sites have been rehabilitated by former mineral rights holders, so the Crown's responsibility for those sites is limited to site inspection and monitoring. This leaves two Class A Crown-held sites – South Bay and the ERG tailing site – that currently have significant environmental impacts and for which conceptual rehabilitation plans have now been developed. According to MNDM, the highest priority privately-held sites are being addressed under section 147 of the *Mining Act*, which allows the Director to order the owner of a mine hazard to submit a closure plan.

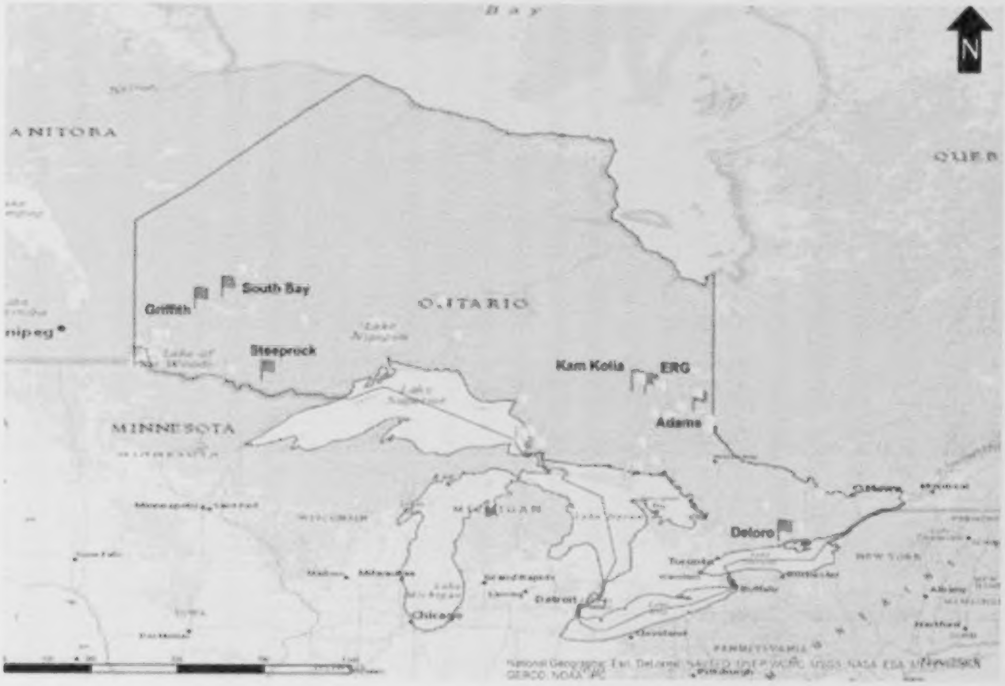


**FIGURE 5.4.1.**

Class A (red flags) and B (yellow flags) Crown-held abandoned mines in Ontario. (Source: Ministry of Northern Development and Mines, 2013).

Because the ministry has focused primarily on Class A sites, rehabilitation plans have not yet been developed for any of Ontario's 28 Crown-held Class B sites. For the Class B Long Lake site, MNDM plans to take interim measures to reduce the erosion of the mine tailings, continue sampling water quality, and conduct a detailed study of the mine in order to determine a preferred remediation option. Following the provisions of its new Class Environmental Assessment, which guides its discretionary rehabilitation activities, MNDM plans to conduct an environmental assessment of this site in 2014 and begin a multi-year cleanup the following year. Estimated remediation costs are between $9 and $12 million.

### *Funding*

Recent data from MNDM indicate that a total of $116 million has been spent through the AMRP since 1999. While this amount may seem significant, MNDM approximated in 2000 that $500 million would be required to rehabilitate all sites; Crown sites alone were estimated to require $200 million, and the costs to rehabilitate Kam Kotia were not included.

According to MNDM, one of the goals of AMIS and the ranking system was to enable better estimates regarding the required level of funding, and to establish a timeframe for completing the necessary rehabilitation efforts. It would appear, however, that this goal has not been fully realized. While high-level cost estimates have been developed for two Class A mines – $16.6 million for South Bay and $13.6 million for the ERG site – it seems that an updated total cost estimate that covers all classified sites has not been established. In response to the ECO's enquiry, MNDM indicated that it does not have an accurate estimate for the rehabilitation of all Crown-held sites.

Admittedly, a complicating factor is the fact that, going forward, some privately-held sites may revert back to the Crown through dissolution or bankruptcy of the current mine owner, thus resulting in substantially greater public liability. According to MNDM, however, over the past five years no Class A or B sites have been forfeited and returned to the Crown and, therefore, no additional sizeable liabilities have been accrued. Given that the above estimate of $200 million is now over a decade old, and that a significant amount has been spent to date, it would be instructive to establish, at least for currently-held Crown sites, a more up-to-date overall cost estimate.

### *Timeframe*

MNDM reported to the ECO that it is difficult to establish a specific timeframe for rehabilitating remaining sites, as this depends on a number of variables, including, for Crown-held sites, the annual level of funding made available for the AMRP. The ECO is somewhat puzzled by this response; in the absence of updated cost estimates, it is difficult to understand how decisions regarding annual levels of funding would be made. Accordingly, the ECO would encourage MNDM to work towards updating its overall cost estimates so that decisions regarding funding and completion dates can subsequently be made.

## ECO COMMENT

With the completion of the abandoned mines database, and a priority classification and ranking system in place, the government is now fully aware of the level of environmental risk posed by Ontario's abandoned mines. Of the approximately 6,000 sites that have been identified, 30 have been classified as environmentally high-risk locations. While Kam Kotia has rightly received the bulk of the attention and funding, it is now time to shift the focus towards cleaning up these other sites. Key to moving forward with long-term remediation is the provision of sustained, multi-year funding similar to what has been allocated in the past. However, in contrast to previous multi-year commitments (such as the six-year one made in 2006), no new funding has been announced for the rehabilitation program in the last two budgets. This is despite the fact that Ontario mining tax revenues have totalled almost $252 million over the same two years and could serve as a source of funding. The ECO urges the government to ensure more funds are specifically devoted towards addressing the long-standing and severe environmental hazards caused by Ontario's mining legacy.

*For ministry comments, please see Appendix C.*

## 5.5 Air Emissions for an Asphalt Blending Facility

### Background

In August 2012, two applicants submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) to investigate an alleged violation of section 9(1) of the *Environmental Protection Act* (*EPA*) by McAsphalt Industries ( the "company") for operating its newly constructed asphalt blending and storage facility in Hamilton, Ontario, without the required Environmental Compliance Approval (ECA) for air emissions. The ECO forwarded the application to the Ministry of the Environment (MOE).

Section 9(1) of the *EPA* prohibits anyone from using, operating, constructing, altering, extending or replacing any plant, structure, equipment, apparatus, mechanism or thing that may discharge a contaminant into the natural environment except under, and in accordance, with an ECA. ECAs, which are issued by MOE, include legally enforceable rules of operation that aim to protect the natural environment from a facility's emissions.

In May 2011, the company applied to MOE for an ECA for all emissions from the Hamilton facility resulting from asphalt blending, storage and shipping. Emissions to the atmosphere include carbon monoxide, hydrogen sulfide, and asphalt fumes. A proposal notice for the ECA was posted on the Environmental Registry (#011-3662) on May 25, 2011.

In May 2012, the applicants observed that the company had begun operating, despite the fact that MOE had not yet issued the ECA. In July 2012, the applicants contacted MOE and were told that the ministry was still awaiting additional information from the company in order to complete the review of the ECA application. The applicants stated that MOE expressed surprise that the company had not followed up on the delay in processing its application, but acknowledged that the company was indeed carrying out "partial operations," including the bulking and transport of materials.

In August 2012, the applicants submitted the application for investigation. The applicants included photographs showing that the company had been operating as early as May 2012. The applicants expressed concern that, because the facility began operating without the required ECA, its environmental controls may not have been adequate and its air emissions could have caused negative environmental impacts in an already stressed airshed. The applicants further alleged that the facility had been emanating foul odours and, thus, was already causing adverse environmental impacts.

The applicants stated that the company's decision to initiate operations prior to securing an approval sets a bad example for the compliance approvals process. The applicants argued that a delay by MOE to review and issue approvals is not an acceptable reason for a facility to move ahead with operations that require approval under the *EPA*.

Finally, the applicants alleged that this situation represents a circumvention of public rights under the *EBR*. According to the *EBR*, the public should be given the opportunity to review and request leave to appeal MOE's final decision on the ECA once it is posted on the Environmental Registry. The applicants argued that by moving forward without ministry approval, the company effectively prevented the public from exercising their *EBR* rights to participate in this approval.

## MINISTRY RESPONSE

In November 2012, MOE notified the applicants that it had decided to conduct the investigation. On January 25, 2013, the ministry provided the applicants with a decision summary that outlined the results of the investigation.

MOE stated that staff reviewed relevant ministry files, as well as the supporting information provided by the applicants, and attended the site. MOE noted that it had conducted an air inspection at the plant prior to the application in June 2012, as well as odour monitoring between September and November 2012. While the ministry was unable to verify any odours originating from the site, it noted that the plant was under construction and was partially operating.

MOE's investigation concluded that construction and operation of the McAsphalt Industries facility without a valid ECA was in contravention of section 9(1) of the *EPA*. On November 30, 2012, the ministry issued a Provincial Officer's Order requiring the company to cease operations by December 15, 2012, until a valid approval was issued.

On December 14, 2012, MOE issued the company's ECA and, accordingly, the site was brought into compliance with the *EPA*. The ministry posted its decision on the Environmental Registry on January 11, 2013. The ministry added terms and conditions to the ECA that addressed concerns raised during the public comment period, including the installation of equipment to control emissions of asphalt fumes. MOE stated it will monitor and inspect the facility in 2013/2014.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

## ECO COMMENT

The ECO is pleased that MOE decided to undertake this investigation, and that the ministry ultimately brought McAsphalt Industries into compliance using a Provincial Officer's Order. However, the ECO is disturbed by the ministry's delay in taking action. MOE clearly knew as early as June 2012, if not earlier, that the company had begun constructing the facility and was partially operating without an ECA – clear violations of the *EPA*. Yet, the ministry waited five months to bring the company into compliance, and only after receiving an application for investigation. MOE should have initiated its compliance efforts as soon as it became aware of the violation.

The ECO acknowledges that there is a spectrum of compliance tools that can, and should, be used in different circumstances; however, the ECO believes there are no circumstances under which it is ever acceptable for the ministry to take no action at all in the case of a clear contravention.

While the contravention in this case might be considered minor, the ECO cautions the ministry that it risks undermining its approval program by willingly turning a "blind eye" to facilities that begin operating before receiving the required ECA. Furthermore, this approach could erode public confidence in MOE's approvals process and the rights established by the *EBR*. By essentially allowing the company to operate before the ECA was issued, and further delaying another month to post the decision notice on the Environmental Registry once decided, MOE seriously undermined the value of the public's important right to seek leave to appeal this decision.

Nevertheless, this case illustrates the effectiveness of the *EBR*'s application for investigation process. When MOE failed to address a violation of one of its laws, concerned citizens took action to protect human and environmental health using the tools provided by the *EBR*.

*For a more detailed review of this application, please refer to Section 3.1.3 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 5.6 A New Compost Framework for Ontario

In September 2012, the Ministry of the Environment (MOE) finalized a new compost framework for Ontario. It includes new Ontario Compost Quality Standards (the "Standards") and a Guideline for the Production of Compost in Ontario (the "Guideline").

### The Benefits of Composting

The most obvious benefit of composting is waste diversion; organics constitute about one-third of the waste stream, making effective management of these materials crucial if Ontario is to achieve its goal of 60 per cent diversion (as of 2010 progress had stalled at about 24 per cent.) Other important benefits of compost include: increasing the organic matter and nutrients returned to soils, contributing to soil health and fertility; decreasing the application of fertilizer or raw manure to agricultural land, reducing water pollution; and decreasing production and transportation of energy-intensive fertilizer, reducing greenhouse gas emissions. The approximately 500,000 tonnes of compost applied each year to soils in Ontario sequesters the carbon equivalent of the annual output of about 18,000 passenger cars. (For a detailed description of compost's many benefits, see Part 6.4 of the ECO's 2009/2010 Annual Report.)

### Progress and Challenges in Ontario

Composting has been growing rapidly in Ontario. Over the past decade, numerous municipalities across the province have expanded their leaf and yard waste composting programs to collect a wider range of household organic materials. Between 2002 and 2012, the amount of organic residuals collected annually from Ontario residences rose from approximately 360,000 to more than 850,000 tonnes.

As the compost industry has expanded, however, it has faced significant challenges. Many facilities have struggled with odour issues, with some required to suspend operations pending improvements and others completely shut down. As a result, the siting of new compost facilities frequently faces opposition from local communities. In addition, some citizens have expressed strong opposition to the composting of certain raw materials, particularly municipal sewage biosolids (i.e., the solid residual from the biological treatment of human wastes), arguing that compost produced from these materials presents risks to human health and the environment.

Finally, despite the rapid growth of composting, most organic residuals generated each year in Ontario are either sent to landfill or are directly applied – untreated in some cases – to agricultural lands. Composting facilities currently capture less than 40 per cent of residential and business organic residuals and virtually none of the approximately 530,000 dry tonnes of sewage and pulp and paper biosolids generated in the province each year.

## The New Composting Framework

The Standards and Guideline form the core of the new compost framework. Together, these documents replace the previous Interim Guidelines for the Production and Use of Compost in Ontario (the "Interim Guidelines"), which were released in 1991 and updated in 2004. The new documents provide updated, more detailed and comprehensive quality standards and guidance for the compost industry.

### *New Compost Quality Standards:*

The Interim Guidelines' quality standards included maximum concentrations for 11 different metals in both compost feedstock (raw materials) and the finished product, and minimum process temperature requirements (55°C) for pathogen reduction. Compost that failed to meet these standards was subject to the rules for transporting and managing wastes, including the need for an Environmental Compliance Approval (ECA) to apply the materials to land.
The new Compost Quality Standards establish three categories of compost that will enable a broader range of organic materials to be composted:

**Category AA –** the highest-quality category may be transported and used anywhere without restrictions or approvals. The maximum metal concentrations for finished compost have not changed from those in the Interim Guidelines, but those for feedstock materials have been relaxed, allowing for small amounts of lower-quality inputs (but no biosolids) to be processed.

**Category A –** the second-highest category may be transported and used without approvals, although some labelling requirements apply. The maximum metal concentrations for the product have been slightly relaxed for copper and zinc and considerably relaxed for feedstock. Up to 25 per cent biosolids may be included in the feedstock.

**Category B –** the third and lowest category of compost will continue to be deemed a "waste" and require government approval for its transportation and use. Up to 100 per cent biosolids may be used as feedstock. The metal concentrations and other parameters included in the Standards are the most relaxed for this category.

### *Guideline for the Production of Compost in Ontario:*

Whereas the Interim Guidelines provided only the most basic guidance for compost facility operators, the new Compost Guideline provides expanded advice for the managers and operators of composting facilities, including extensive guidance on preventing and controlling odour.

## IMPLICATIONS OF THE DECISION

### More Material Will be Composted

The three categories of compost in the new Standards are designed to increase composting while still protecting the environment. In general, the relaxed feedstock criteria will allow facilities to use a greater range of materials, as long as the final product criteria are met. Category A compost will not require government approvals for transport or use, opening the door for its use in higher quality markets, such as agriculture and horticulture. Category B compost can be produced from up to 100 per cent biosolids and, although still considered a "waste," it will now have to meet a prescribed set of standards, making permitting easier. Lower quality B compost can be used for land reclamation, mining rehabilitation and reforestation. The potential, created by the new framework, to direct huge quantities of carbon-rich and nutrient-laden material into the province's soils is the major environmental benefit of the new composting framework.

### The Environment Will Still Be Protected

Composting, while beneficial, can result in negative environmental impacts if not managed properly. The new Standards should ensure that adequate environmental protection is maintained. The maximum allowable concentrations for metals are based on upper levels of background concentrations in soils, or best achievable technology, whichever is higher. These maximum metal criteria combined with required labelling of specified application rates on compost products, help to minimize gradual metals build-up in soil. With respect to pathogens, the scientific literature generally supports the MOE position that a properly operated composting process will reduce pathogens to non-harmful levels. Finally, with respect to the various organic compounds often found in low levels in sewage biosolids, such as pharmaceuticals, household cleaning products, pesticides and some industrial chemicals, the scientific literature also generally supports the ministry's position that some of these contaminants may volatilize or degrade quickly within treatment plants and in the soil after land application. Composting may be more effective than other treatment processes for removing some pharmaceuticals and personal care products.

### Compost Industry Now Has Better Guidance

The new Guideline clearly sets out best practices for facility siting, design, maintenance and management, so that these can be easily and consistently incorporated into new ECAs for compost producers. The emphasis on odour prevention and management should help address odour issues, which have significantly and negatively affected composting's reputation. The Guideline provides a sound basis for the development of an effective, consistent approach to odour. Finally, the Guideline takes a flexible approach; the advice in the document has to be incorporated into an ECA to become legally binding. This allows the ministry to tailor ECAs to match specific circumstances and reflects the ministry's awareness that composting is still a fairly new and rapidly evolving industry.

## ECO COMMENT

The ECO is pleased with MOE's new composting framework. The ministry's mandate to protect the environment and "ensure healthy communities, ecological protection and sustainable development for present and future generations of Ontarians" must surely include the conservation and replenishment of the province's soils. The clear recognition of compost's multiple soil-related environmental benefits in the new composting framework is very welcome. Also welcome are the potential positive impacts of this new framework on the province's waste diversion rate, which has been stagnant for far too long.

MOE's mandate, however, also includes regulating the release of contaminants into the environment to prevent adverse effects to ecosystems and/or harm to human and animal health. Biosolids usually contain higher levels of contamination than other organic residuals; therefore, their inclusion in composting processes must be carefully considered. The ECO believes that the new framework successfully balances these quality concerns with opportunities for substantial environmental benefit. By creating two unrestricted-use categories – AA (without biosolids) and A (with a maximum 25 per cent biosolids and mandatory labelling) – the ministry has achieved a useful compromise. It allows many previously excluded organic residuals to gain a foothold in the higher-value, unrestricted-use compost marketplace, without opening the door all the way.

Finally, the ECO is very pleased with the new compost production Guideline, particularly with respect to odour management. This Guideline should help to improve the success rate and public acceptance of composting operations in the province. The ECO also supports the Guideline's flexible approach, given that the composting industry is still evolving and improving its processes. That flexibility, however, could create future problems; new or newly imported technologies and methods should receive close scrutiny before permits are issued. The ECO will be monitoring this very important concern in years to come.

*For a more detailed review of this decision, please refer to Section 1.2 of the Supplement to the Annual Report. For ministry comments, please see Appendix C.*

## 5.7 Using the *EPA* to Regulate the Safe Disposal of Waste Pharmaceuticals and Sharps

On October 1, 2012, the Ministry of the Environment (MOE) implemented O. Reg. 298/12 (Collection of Pharmaceuticals and Sharps – Responsibilities of Producers) under the *Environmental Protection Act* (*EPA*), introducing a new – and radically different – approach to diverting waste in Ontario.

For most of Ontario's designated wastes (e.g., aluminum cans, electronics, tires, etc.), an industry funding organization (IFO) charges per-unit "stewardship fees" to the producers of these products (i.e., manufacturers, brand owners and importers) to finance the implementation of an MOE-approved waste diversion program plan. This approach, legislated under the *Waste Diversion Act, 2002* (*WDA*), is based on the concept of extended producer responsibility (EPR), whereby a producer's responsibility for a product extends to its end-of-life management. For years, EPR programs have been used in Ontario to finance the collection, processing and recycling of Blue Box materials, waste electronics, used tires and municipal hazardous or special waste (MHSW), like paint, antifreeze and fertilizer.

But when MOE amended Ontario's MHSW program in July 2010 to include additional products like household cleaners, pharmaceuticals and sharps, a political firestorm erupted. Some retailers had chosen to add a separate "eco fee" line on their receipts, likely to indicate to consumers the amount they had increased retail prices to cover an anticipated increase in

wholesale prices resulting from stewardship fees (see the ECO's 2010 Special Report, Getting it Right: Paying for the Management of Household Hazardous Wastes). This visible and detached increase in retail price was interpreted by the public and media as a new tax.

In October 2010, after much negative media and public outcry, MOE revoked the expanded program, thereby suspending the levying of stewardship fees and eliminating retailers' ability to charge "eco fees" on pharmaceuticals, sharps and other newly included products. Although Stewardship Ontario (the IFO) retained responsibility for collecting and managing these wastes for almost another two years, its costs were covered by the Ontario government – and, therefore, by taxpayers.

In September 2012, MOE filed O. Reg. 298/12, which focuses on the end-of-life management of pharmaceuticals and sharps (such as needles and syringes). Its dual purpose is to make producers responsible for managing the wastes resulting from their products, as well as to ensure that consumers have access to convenient locations to return waste pharmaceuticals and sharps so that they are not improperly discarded. When pharmaceuticals are thrown in the garbage or flushed down the drain, their chemical components can end up in groundwater, surface water or soil, creating unexpected and cumulative adverse environmental impacts (see pp. 179-185 of the ECO's 2004/2005 Annual Report). Moreover, the improper disposal of sharps can expose waste handlers and the public to injury, infection and disease.

## O. Reg. 298/12 – Collection of Pharmaceuticals and Sharps – Responsibilities of Producers

The regulation requires each producer of a brand of pharmaceuticals or sharps to provide for the safe disposal of their products (and the containers in which they are returned) when consumers return these wastes to "collection locations." The regulation requires individual producers to meet minimum requirements concerning the number, accessibility and operation of collection locations. Producers must also ensure that information regarding the location of collection sites, as well as how materials should be safely stored and handled, is made publicly available on the producer's website and in print at collection locations.

Individual producers must ensure that interim and annual reports are prepared describing, among other things: the number and locations of collection sites where their products can be returned; the total weight of waste collected; how the producer's returned material was handled, recycled or disposed; the producer's actions to fulfil its regulatory obligations; and the effectiveness and outcomes of these actions. Although interim and annual reports may be prepared collectively on behalf of more than one producer, reports must be posted on each producer's website.

## IMPLICATIONS OF THE DECISION

O. Reg. 298/12 represents a new direction for EPR in Ontario. Unlike the *WDA* approach, the new regulation does not require the implementation of a ministry-approved, IFO-operated and producer-funded waste diversion program. Rather, the regulation leaves it up to individual producers to design, implement and finance a diversion program however they choose – either alone or in partnership with other producers – so long as they meet the regulation's requirements. Moreover, in contrast to Ontario's other waste diversion programs, under which unenforceable collection and diversion targets are set out in program plans, O. Reg. 298/12 imposes a legal obligation on producers to meet minimum performance obligations, including those related to the number and location of collection sites, operating standards and reporting requirements. Producers that fail to meet these requirements may be found guilty of an offence under the *EPA* and subject to the Act's penalties.

This approach, known as individual producer responsibility (IPR), transfers program control from an IFO to individual producers, giving producers the flexibility to decide how they will manage and integrate their regulatory obligations into their business practices. Furthermore, making producers individually responsible for the collection and processing of their products when returned as waste could encourage manufacturers to innovate by designing their products with end-of-life management in mind, in order to minimize the costs of collection and recycling.

The amended MHSW program plan had included collection targets for pharmaceuticals and sharps (e.g., by the program's fifth year, Stewardship Ontario had aimed to collect 97 per cent of the sharps and syringes from the residential waste stream sector). By contrast, O. Reg. 298/12 only contains requirements concerning the number and location of collection sites (e.g., by January 2014, the number of collection locations in Ontario must be at least 90 per cent of the number of retail locations or accredited pharmacies where a producer's products are sold). Moreover, because waste pharmaceuticals and sharps were already being collected at about 90 per cent of the pharmacies in Ontario in 2012, it seems unlikely that O. Reg. 298/12 will result in a major increase in the number of collection sites.

Although some municipalities have collected and properly disposed of sharps and pharmaceuticals for years (e.g., through waste depots and environment days), O. Reg. 298/12 makes no mention of the expected role of municipalities. While the regulation does not preclude producers from contracting municipalities to operate collection sites on their behalf, it does not require producers to cover the costs municipalities incur in managing pharmaceuticals and sharps disposed of through the residual waste stream.

The regulation requires producers to provide only for the collection of pharmaceutical and sharp waste generated by residential consumers. Producers are not required to ensure – or finance – the collection of wastes generated in other contexts, such as hospitals, veterinary clinics, morgues and nursing homes. While the management of biomedical waste, which includes sharps used in health care facilities, is subject to a number of legislative and regulatory requirements, responsibility for its collection and safe disposal falls on waste generators (e.g., hospitals) rather than producers.

## Compliance with O. Reg. 298/12

Since January 1, 2013, O. Reg. 298/12 has required producers to: provide a minimum number of collection locations where designated pharmaceuticals (and their containers) and sharps can be returned free of charge; and ensure that the location of these collection locations, and "a description of how consumers should safely store and handle the designated material of the producer before bringing it to a collection location," is made available on producers' websites and in print at each collection location. To meet their EPR requirements under O. Reg. 298/12, more than 100 producers have collectively engaged the non-profit Health Products Stewardship Association (HPSA) to administer the Ontario Medications Return Program (OMRP) and the Ontario Sharps Return Program (OSRP), using community pharmacies as collection locations.

To gauge the level of compliance with the requirements of O. Reg. 298/12 several months after they came into effect, in the summer of 2013 the ECO visited 48 pharmacies across Ontario (identified as collection locations on HPSA's website) and asked pharmacists: about their policies for accepting waste pharmaceuticals and sharps; and for printed information about the return of these wastes. The ECO found great variability in pharmacies' return policies, print information and knowledge of the return programs.

While most of the visited pharmacies confirmed that they collect waste pharmaceuticals and sharps for safe disposal, two stated that they do not accept any materials whatsoever, and four indicated that they would refuse – or charge a fee to accept – products purchased at another pharmacy. Moreover, several pharmacies indicated that they would not collect sharps or the containers in which consumers return pharmaceuticals – only the pharmaceuticals themselves.

When asked for any printed literature about the safe storage and return of waste pharmaceuticals and sharps, almost all pharmacists responded that there was no literature available and that that there was no formal return program; three pharmacies provided paper bags for returning pharmaceuticals (printed with information about storing and returning medications), one provided brochures on the OMRP, and one provided an outdated brochure about Stewardship Ontario's defunct program for returning sharps and leftover medications. No pharmacies provided print information about the location of collection locations. Although not a requirement of the regulation, the ECO observed that no pharmacies displayed posters alerting consumers that waste pharmaceuticals and sharps could be returned onsite.

## ECO COMMENT

The ECO is pleased that MOE has taken a step forward with respect to waste diversion and EPR in Ontario. After the backlash caused by "eco fees," the government quickly retreated on its waste diversion agenda, shifting the costs of managing some of these wastes back onto taxpayers, and halting its long-awaited plans to overhaul the *WDA* (see Part 5.3 of the ECO's

2010/2011 Annual Report). In the years that have followed, little progress has been made in advancing waste diversion policy in Ontario – until now. Unlike the MHSW program under the *WDA*, which required producers to cover the costs of a waste diversion program over which they had little control, the new *EPA* regulation rightly shifts the onus for collecting and managing waste pharmaceuticals and sharps back onto the individual companies that made them, while giving them the flexibility to meet outcomes how they see fit. This approach should help ensure the proper management of pharmaceuticals and sharps while avoiding many of the process-related problems that have strained stakeholder relations and plagued IFO-operated waste diversion programs in the past.

Although the new IPR approach could be beneficial, the ECO has some reservations.

First, the regulation does not require producers to meet any targets other than those related to the number of collection locations. While location targets ensure that opportunities to return waste pharmaceuticals and sharps exist, they do not actually compel producers to promote their take-back program or to encourage consumer returns. In fact, the net result could be quite the contrary. Because producers pay nothing for the management of wastes not collected through the program (e.g., landfilled waste), there is a perverse incentive for producers to minimize the amount of waste collected, perhaps by situating collection locations in inaccessible and inconvenient places, or doing little to ensure consumer awareness of the program. Actual diversion targets are therefore essential to offset or reverse this disincentive. Although establishing a collection target for pharmaceuticals may be challenging (since medication is intended to be fully consumed), regulating collection targets for sharps could compel producers to maximize the collection of these materials. Moreover, requiring producers to ensure that a minimum percentage of the Ontario population is aware of how and where to return waste pharmaceuticals and sharps could compel producers to widely promote the program and educate the public, thereby increasing the rate of returns. The lack of promotional materials found in collection locations visited by the ECO (see Compliance with O. Reg. 298/12 above) validates and reinforces the ECO's concern.

Second, although MOE asserts that "the regulation implements an [EPR] approach that requires producers of pharmaceuticals and sharps ... to be responsible for the management of the wastes resulting from their products," the regulation does not make producers responsible for the management of all of these wastes, since municipalities manage and incur the costs of managing pharmaceuticals and sharps collected in the residual waste stream. Likewise, the regulation fails to make producers responsible for collecting and managing the large volume of waste pharmaceuticals and sharps generated in nursing homes, hospitals, veterinary clinics and other facilities. Excusing producers from the responsibility of managing wastes generated by some of their most significant consumers seems to be a glaring and unfortunate omission.

The ECO hopes that this regulation is just the start of innovative action to minimize the environmental impacts of waste in Ontario. However, the ECO cautions that, with respect to enforcement, if the program is to succeed in meeting the desired outcomes, the ministry must ensure that charges are laid against non-compliant producers. As described above, several months after they came into effect, several collection locations were failing to deliver the collection and promotion/education provisions required of producers in O. Reg. 298/12. Given MOE's history of failing to monitor and enforce compliance with other waste diversion regulations under the *EPA*, and given the ministry's limited capacity (see Part 2.3 of this Annual Report), it seems unlikely that MOE will have the inclination or resources to enforce producer compliance. The ECO strongly urges the ministry to reverse this pattern.

*For a more detailed review of this decision, refer to Section 1.7 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

## 5.8 Filling the Gaps in the Regulation of Fine Particulate Matter

Airborne particulate matter (PM) is a generic term used to describe both solid and liquid microscopic particles with a variety of chemical compositions. Particles less than 10 micrometres (µm) in diameter can be inhaled, and particulate matter smaller than 2.5 µm ($PM_{2.5}$) is able to penetrate deep into the lungs where there is a diminished capacity to remove contaminants. Anthropogenic emissions of $PM_{2.5}$ are produced primarily by fuel combustion (e.g., gasoline and diesel engines, wood burning, etc.), industrial activities, and disturbance of open sources, such as dust, during construction, resource extraction, etc. Secondary $PM_{2.5}$ is produced through reactions between gaseous substances known as precursor emissions. Transboundary emissions from the United States are also a significant source of $PM_{2.5}$ in Ontario.

Evidence shows that exposure to particulate matter is a cause of a number of serious and fatal health effects, including chronic bronchitis and asthma, reduced lung function, and increases in hospitalization and mortality due to cardiorespiratory diseases. Health risk increases with exposure to $PM_{2.5}$, and there is no known threshold below which adverse health effects are not anticipated.

The absence of a safe threshold has made it challenging to establish a standard that would be fully protective against the health effects associated with $PM_{2.5}$. However, in 2005, the World Health Organization (WHO) established guidelines recommending a maximum annual average concentration of 10 micrograms per cubic metre (µg/m$^3$). The WHO also recommended a maximum 24-hour average concentration of 25 µg/m$^3$, and suggested that meeting this guideline would "protect against peaks of pollution that would otherwise lead to substantial excess morbidity or mortality."

## Regulation and Management of Particulate Matter

Although $PM_{2.5}$ is not covered by Ontario's air pollution regulation (O. Reg. 419/05, made under the *Environmental Protection Act*), the province has adopted non-binding measures to address $PM_{2.5}$ emissions. In 2000, Ontario became a signatory to the Canada-wide Standards for Particulate Matter (PM) and Ozone (the "CWS"), which established a target concentration for $PM_{2.5}$ of 30 µg/m$^3$ over a 24-hour averaging time by 2010. According to the Canadian Council of Ministers of the Environment these standards represent a balance between the protection of health and the environment and the costs of pollution reduction; however, "they may not be fully protective."

The CWS threshold is now reflected in Ontario's Ambient Air Quality Criteria (AAQC), which does not impose legal requirements, but serves as a guideline for the desirable concentration of contaminants in the air. In 2010, the Action Plan for the Oakville-Clarkson Airshed noted that "the lack of regulatory control for direct emissions [of $PM_{2.5}$] is troubling for persons who live in airsheds such as Oakville and Clarkson," which are considered "taxed."

## Request for a New Act or Regulation to Regulate $PM_{2.5}$

In December 2009, two representatives of the Town of Oakville submitted an application requesting the Ministry of the Environment (MOE) to undertake a review of the need for a new act or regulation to protect public health from $PM_{2.5}$.

The applicants argued that a review is necessary as ambient air concentrations of $PM_{2.5}$ have caused a public health crisis, and that this crisis will continue to grow because Ontario's existing regulatory regime inadequately protects against the health impacts of $PM_{2.5}$. They asserted that the province has no legally binding standards that specifically set limits on emissions of $PM_{2.5}$, a fact the applicants stated has been confirmed by MOE and Ontario courts. Moreover, the applicants argued that the target set under the CWS is insufficient to protect public health.

## MINISTRY RESPONSE

MOE decided that a review was warranted, noting that "there may be a policy gap with respect to domestic sources of primary $PM_{2.5}$." However, the ministry stated that other aspects of the applicants' request, including a request to consider cumulative effects of air pollutants, were already being considered as part of a separate review of the ministry's Statement of Environmental Values and, therefore, would not be included. MOE completed its review in May 2012.

MOE noted that $PM_{2.5}$ presents a unique management challenge because of the variety of sources, the existence of both primary and secondary emissions, and the absence of a safe threshold. The ministry also noted that residential emissions (e.g., fireplaces) are now the largest contributor of $PM_{2.5}$ (accounting for 40 per cent of total emissions), which marks a shift away from industrial sources. MOE also stated that there have been significant reductions in both primary and precursor emissions, and that annual outdoor levels of $PM_{2.5}$ decreased by 30 per cent between 2003 and 2010.

MOE noted that current initiatives for the management of $PM_{2.5}$ include: adoption of the CWS; phasing out of coal-fired generation; the Drive Clean program; emissions trading for the electricity and industrial sectors; stronger regulations on industrial emissions; the environmental assessment process; and environmental approvals for industrial facilities. The ministry also stated that current and upcoming programs will further address $PM_{2.5}$, including: updated standards under O. Reg. 419/05; the Toxics Reduction Strategy; and the Air Quality Management System (AQMS; see below).

MOE concluded that there is no need for further action to revise Ontario's approach to managing $PM_{2.5}$.

*For the full text of the ministry decision, please see our website at www.eco.on.ca.*

## Upcoming Changes to Ontario's Management of Particulate Matter

In October 2012, provinces and territories across Canada (with the exception of Quebec) agreed to begin implementation of a new AQMS. A key element of the AQMS is the development of Canadian Ambient Air Quality Standards (CAAQS) for outdoor concentrations of pollutants, which will replace the existing CWS. The CAAQS, which were published in the Canada Gazette on May 25, 2013, introduce revised 24-hour standards for $PM_{2.5}$ of 28 $\mu g/m^3$ by 2015, and 27 $\mu g/m^3$ by 2020. There are also new annual average targets of 10 $\mu g/m^3$ by 2015 and 8.8 $\mu g/m^3$ by 2020.

## ECO COMMENT

The ECO is pleased that MOE decided to proceed with the review and agrees with the ministry's scoped approach since the issue of cumulative effects of air pollutants is being considered as part of another MOE review (see Section 2.2.3 of the Supplement to this Annual Report). However, this highlights the importance of moving ahead with that review, and determining how the ministry will apply principles such as cumulative effects and the ecosystem approach in its decision making. That review has been outstanding for over four years with no sign of progress on these issues.

The ECO shares the applicants' concern that Ontario's $PM_{2.5}$ standards may not be sufficiently protective of human health. Even if Ontario is able to meet its non-binding targets, the current thresholds are less protective than the standards that have been identified to protect human health – for example, the 25 $\mu g/m^3$ 24-hour average recommended by the WHO.

Although $PM_{2.5}$ emissions present a unique regulatory challenge, the government should take a firmer approach to both emissions and ambient concentrations. At a minimum, Ontario should adopt a $PM_{2.5}$ objective that reflects a health based-threshold, as it does for many other regulated pollutants. Ontario's commitment to implement the new CAAQS for $PM_{2.5}$ – which includes a target annual mean of 10 $\mu g/m^3$ by 2015 – may be a positive step in this direction. To make the objectives meaningful, MOE policy should include an explicit requirement that new Environmental Compliance Approvals (ECAs) include the consideration of $PM_{2.5}$ targets. If appropriate, MOE should also ensure the application of conditions to ECAs to prevent ambient levels of $PM_{2.5}$ from exceeding the provincial guidelines.

The ministry has admitted that there is a problem – it has acknowledged that $PM_{2.5}$ presents a human health burden in Ontario and that there are regulatory gaps. Although there are supposedly long-term tools being developed to address this problem, MOE's claim that there is "no need to take further action" undermines the urgency of addressing this important issue. There is a clear need for action, particularly in applying the principles of cumulative effects and the ecosystem approach to the regulation of $PM_{2.5}$ and other air pollutants.

*For a more detailed review of this application, please refer to Section 2.2.4 of the Supplement to this Annual Report. For ministry comments, please see Appendix C.*

# APPENDIX A

## 2012/2013 Annual Report Recommendations

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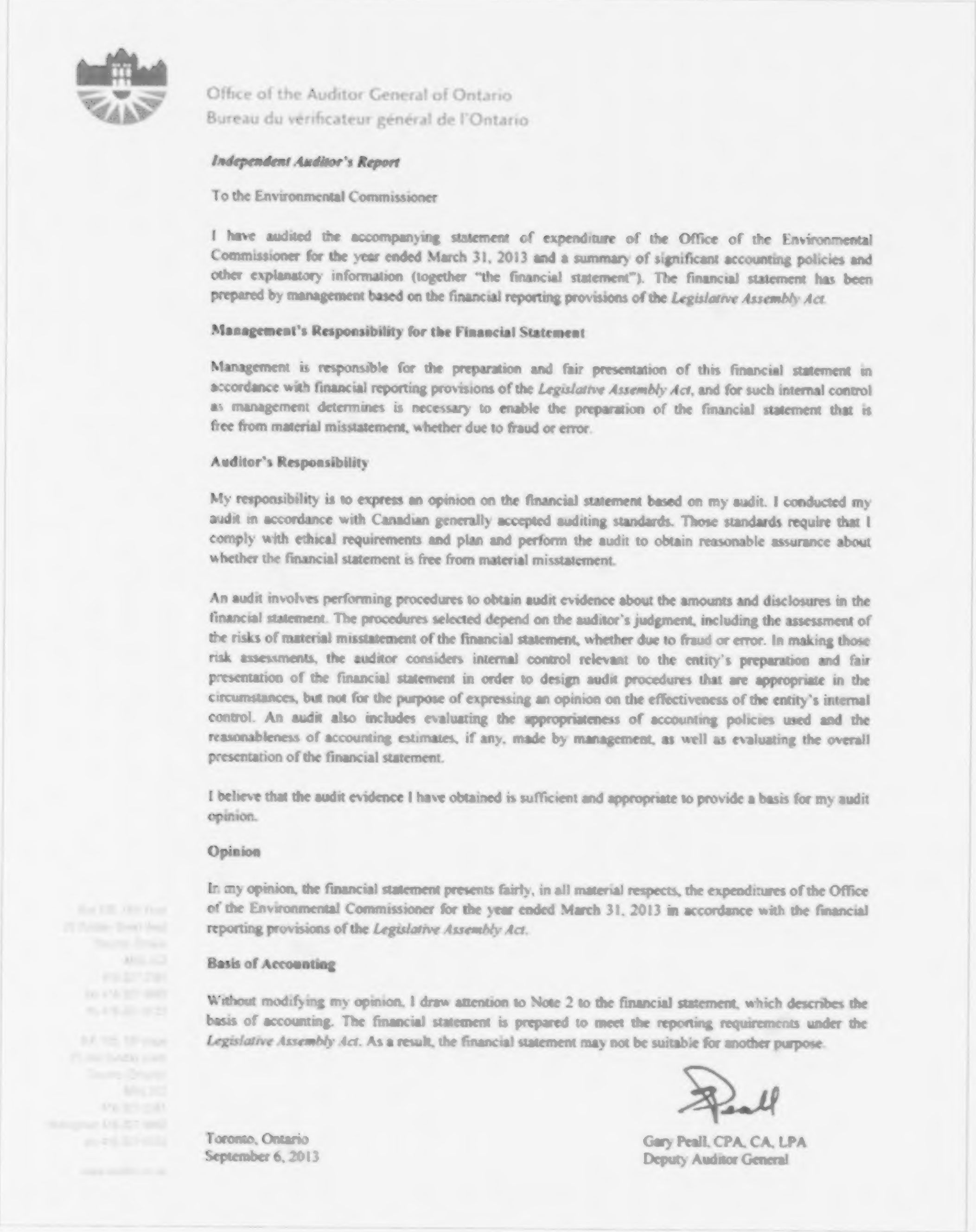
| **RECOMMENDATION 1:**<br>Part 1.4 – Class EAs and the Environmental Registry | The ECO recommends that all Class EA terms of reference and parent documents be posted as policy proposals for public comment on the Environmental Registry. |
| **RECOMMENDATION 2:**<br>Part 3.1.1 – Environmental Monitoring Necessary for Decision Making in the Far North | The ECO recommends that MOE, MNR and MNDM make a statutory commitment to long-term environmental monitoring for the Far North, including the Ring of Fire. |
| **RECOMMENDATION 3:**<br>Part 3.1.2 – The Big Picture: Regional Strategic Environmental Assessment in the Ring of Fire | The ECO recommends that MOE, MNR and MNDM establish a strategic environmental review and permitting process for the Ring of Fire that expressly addresses cumulative impacts. |
| **RECOMMENDATION 4:**<br>Part 3.2 – Land Use Planning: Blind-Eye Measurement and Milquetoast Monitoring | The ECO recommends that MNR and MOE make a statutory commitment to long-term environmental monitoring to inform land use planning in southern Ontario. |
| **RECOMMENDATION 5:**<br>Part 4.1 – Ontario Government Plan to Conserve Biodiversity | The ECO recommends that each of the 16 ministries under the Ontario Government Plan to Conserve Biodiversity develop an implementation plan by 2014. |
| **RECOMMENDATION 6:**<br>Part 4.5 – Missing Metrics: The Lake Simcoe Fish Community Objectives | The ECO recommends that MNR develop timelines, indicators and quantifiable targets for the management of the Lake Simcoe fish community. |
| **RECOMMENDATION 7:**<br>Part 4.6 – Protected Areas Planning: A Lost Priority | The ECO recommends that MNR discontinue its user-fee cost-recovery approach for all aspects of the management of Ontario's protected areas, except for recreational activities. |

# APPENDIX B

## Financial Statement



Office of the Auditor General of Ontario
Bureau du vérificateur général de l'Ontario

***Independent Auditor's Report***

To the Environmental Commissioner

I have audited the accompanying statement of expenditure of the Office of the Environmental Commissioner for the year ended March 31, 2013 and a summary of significant accounting policies and other explanatory information (together "the financial statement"). The financial statement has been prepared by management based on the financial reporting provisions of the *Legislative Assembly Act.*

**Management's Responsibility for the Financial Statement**

Management is responsible for the preparation and fair presentation of this financial statement in accordance with financial reporting provisions of the *Legislative Assembly Act*, and for such internal control as management determines is necessary to enable the preparation of the financial statement that is free from material misstatement, whether due to fraud or error.

**Auditor's Responsibility**

My responsibility is to express an opinion on the financial statement based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statement. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates, if any, made by management, as well as evaluating the overall presentation of the financial statement.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In my opinion, the financial statement presents fairly, in all material respects, the expenditures of the Office of the Environmental Commissioner for the year ended March 31, 2013 in accordance with the financial reporting provisions of the *Legislative Assembly Act.*

**Basis of Accounting**

Without modifying my opinion, I draw attention to Note 2 to the financial statement, which describes the basis of accounting. The financial statement is prepared to meet the reporting requirements under the *Legislative Assembly Act*. As a result, the financial statement may not be suitable for another purpose.

Toronto, Ontario
September 6, 2013

Gary Peall, CPA, CA, LPA
Deputy Auditor General

## Financial Statement

For the Year Ended March 31, 2013

| | Budget (Unaudited - Note 6) $ | 2013 $ | 2012 $ |
|---|---|---|---|
| Salaries and wages | 2,118,100 | 2,011,196 | 2,019,998 |
| Employee benefits (Note 4) | 487,200 | 404,727 | 411,923 |
| Transportation and communication | 107,900 | 94,659 | 97,896 |
| Services | 1,005,700 | 1,030,188 | 1,029,603 |
| Supplies | 70,500 | 173,277 | 119,571 |
| | 3,789,400 | 3,714,047 | 3,678,991 |

Commitments (Note 5)

See accompanying notes to financial statement.

Approved by:

Environmental Commissioner

## Notes to the Financial Statments

### 1. Background

The Office of the Environmental Commissioner (Office) commenced operation May 30, 1994. The Environmental Commissioner is an independent officer of the Legislative Assembly of Ontario, and promotes the values, goals and purposes of the *Environmental Bill of Rights, 1993* (*EBR*) to improve the quality of Ontario's natural environment. The Environmental Commissioner also monitors and reports on the application of the *EBR*, participation in the *EBR*, and reviews government accountability for environmental decision making.

### 2. Significant Accounting Policies

**BASIS OF ACCOUNTING**

The Office follows the basis of accounting adopted for the Office of the Assembly as required by the *Legislative Assembly Act* and accordingly uses a modified cash basis of accounting that allows an additional 30 days to pay for expenditures incurred during the year just ended. This differs from Canadian generally accepted accounting principles in that for example liabilities incurred but unpaid within 30 days of the year end are not recorded until paid, and expenditures for assets such as computers and office furnishings are expensed in the year of acquisition rather than recorded as capital assets and amortized over their useful lives.

### 3. Expenditures

Expenditures are paid out of monies appropriated by the Legislative Assembly of Ontario. Expenditures are reported net of recoverable sales tax, which is recovered by the Office of the Assembly on the Office's behalf.

Certain administrative services are provided by the Office of the Assembly without charge.

### 4. Pension Plan and Post-retirement Benefits

The Office's permanent employees (and non-permanent employees who elect to participate) participate in the Public Service Pension Fund (PSPF), which is a defined benefit pension plan for employees of the Province and many provincial agencies. The Province of Ontario, which is the sole sponsor of the PSPF, determines the Office's annual payments to the fund. As the sponsor is responsible for ensuring that the pension funds are financially viable, any surpluses or unfunded liabilities arising from statutory actuarial funding valuations are not assets or obligations of the Office. The Office's required annual payments of $150,000 (2012 - $159,000), are included in employee benefits expense.

The cost of post-retirement non-pension benefits were paid by the Ministry of Government Services and are not included in the statement of expenditure.

### 5. Lease Commitments

The Office has a lease agreement with its landlord for its current premises expiring on February 28, 2018. The minimum lease payments for the remaining term of the lease are as follows:

| | $ |
|---|---:|
| 2013/14 | 141,800 |
| 2014/15 | 141,800 |
| 2015/16 | 141,800 |
| 2016/17 | 141,800 |
| 2017/18 | 130,000 |
| | 697,200 |

### 6. Budgeted Figures

Budgeted figures were prepared by the Office and approved by the Board of Internal Economy—an all-party legislative committee. It is presented for information purposes only and has not been audited.

# APPENDIX C

## Ministry Comments on the Annual Report

In this Appendix, ministries provide feedback to the Environmental Commissioner on articles contained in the Annual Report.

## Part 2: The Role of Government as Environmental Steward

### 2.1 The Abdication of Natural Resources Management by MNR

***Ministry of Natural Resources***

MNR reviewed its legislative requirements, business lines and delivery structure, and developed a comprehensive plan to transform and refocus its role in natural resource management. The changes MNR is making are necessary to deliver on our core priorities, modernize our business, achieve operational and financial sustainability, and help the government balance the budget. MNR believes organizational transformation should be judged by actual regulatory reform and program outcomes, rather than a "nightmare scenario" imagined in advance of change.

Risk evaluation has always been a key component in protecting and managing Ontario's natural resources. MNR's risk management framework will provide a consistent and adaptive approach to identifying, analysing, and managing risk. The framework will allow the ministry to target resources in the highest priority areas, while continuing to deliver on our commitment to protect and manage natural resources.

Amendments made to seven MNR Acts were necessary in order to streamline and modernize the approvals process. MNR has, and will continue to consult extensively on proposed regulatory changes – including posting proposed changes on the Environmental Registry for review and comment. MNR did not consult publicly on administrative transformation changes that were not environmentally significant or had staffing implications that would trigger obligations for proper disclosure under our collective agreements.

The Broader Landscape Approach decision notice was posted on the Environmental Registry on June 28, 2013.

Functions of the Science and Information Resources Division will be embedded within operational divisions, strengthening linkages between science and the vital work that happens on the ground. MNR has always relied on the best available science to manage our natural resources, and that will not change with this realignment.

MNR remains committed to natural resource management and conservation, and to our core business lines of fish and wildlife, forestry, Crown land management, water, parks and protected areas, non-renewable resources and public safety. A transformed MNR includes building on existing strengths that enable the ministry to manage and protect the province's natural resources.

## 2.2 Shielded From Public Scrutiny: Bill 55's Sweeping Changes to Environmental Laws

***Ministry of Natural Resources***

Seven MNR Acts were amended by the 2012 Budget Bill to support the Ministry's transformation objectives. As these amendments formed part of a budget proposal, Section 33 of the *EBR* applied.

MNR is committed to ensuring environmentally significant proposals are posted to the Environmental Registry, including those related to MNR's transformation. This year 292 notices were posted including the "Taking a Broader Landscape Approach" and "Modernization of Approvals" discussion papers for public comment. In December 2012, MNR posted three regulation proposal notices to modernize approvals. MNR will continue to engage the public via the Environmental Registry on environmentally significant proposals.

## 2.3 A Smaller and Smaller Piece of the Pie: The Budgets of MOE and MNR

***Ministry of Natural Resources***

Through the 2013 Budget, MNR's budget was permanently increased by $40 million, in recognition of the importance of managing and protecting our natural resources, parks and protected areas, supporting science and research, and maintaining a strong field presence in northern and rural Ontario. This funding will help MNR become more financially and operationally sustainable.

***Ministry of the Environment***

MOE remains dedicated to its core programs and is committed to protecting the environment and health of the people of Ontario while continuously looking for ways to more effectively and efficiently deliver on its mandate.

The ECO compares MOE operating budgets over many years, some of which include significant start-up funding for initiatives such as the Lead Action Plan and the Toxics Reduction Strategy, which have now reached maturation.

# Part 3: Information, Science and Monitoring

## 3.1 Looking Before We Leap: Making Informed Decisions for the Far North and the Ring of Fire

***Ministry of Natural Resources***

In the Far North, it is intended that community based land use plans precede development. *Under the Far North Act*, a community based land use plan is required prior to most development, such as the opening of a mine, the construction or expansion of electrical generation facilities, transmission lines and all-weather transportation infrastructure, unless an exception or an exemption apply. Certain activities, such as those for community use and need, may be permitted to proceed without a plan. Planning for potential mineral development, including environmental assessments, can proceed concurrently with preparing plans. The information and data assembled for consideration of any potential development, such as mining or infrastructure corridors, will also contribute valuable information in the development of land use plans. Likewise, information being collected for planning can help inform the environmental assessments.

To date, five First Nations have completed community based land use plans. Another community recently finalized a terms of reference for their land use planning, and is now working on a draft plan. All First Nations in the Ring of Fire (RoF) area are engaged with MNR at some stage of planning. It is anticipated that those communities most affected by the RoF may have terms of reference in place this year. This would formally initiate the public consultation process for these land use plans.

MNR is providing significant funding to support RoF communities for traditional knowledge documentation and community based land use planning.

MNR baseline work underway in the RoF includes establishing hydrology baseline conditions, biodiversity sampling, and carbon-peatland studies. This work builds upon efforts by MNR to revise spatial data that is publicly available for hydrology, base data, land cover, disturbance mapping and elevation. In addition, recent reports have been produced to summarize past studies and inform monitoring interests.

MNR is committed to working with First Nations, federal and provincial partners on any Regional Long Term Monitoring framework for the RoF. Over the past five years, MNR has undertaken resource inventories and assessments across much of the Far North, including surveys for species of interest (e.g., caribou), biodiversity, and areas of natural heritage or scientific interest. The installation of 12 new hydrometric gauges across the Far North has helped to advance site level monitoring. Similarly, carbon flux stations have been established to improve monitoring and understanding of hydrology and carbon in peatlands.

Initial discussions regarding the establishment of a Joint Body were held with First Nations in 2012. Although there was marked interest, it was agreed that more work was required to build support and understanding with First Nations, and to inform communities about the Far North Land Use Strategy and its role in planning, before considering the establishment of a joint body. In 2013, MNR will begin phased public consultation on the Far North Land Use Strategy, with the goal of a draft Strategy in 2014.

### *Ministry of Northern Development and Mines*

The Ring of Fire Secretariat agrees with the ECO that environmental monitoring is essential in the Ring of Fire and that accurate baseline information be collected prior to development taking place in order that any potential changes are better understood.

That is why the Government of Ontario made commitments on May 9, 2012, amongst other things, to enter into discussions with First Nations in the Ring of Fire area about establishing a regional long-term environmental monitoring program. The regional long-term environmental monitoring framework could include a framework for evaluating cumulative effects of multiple projects. This regional long-term environmental monitoring would be in addition to any monitoring that may be required of proponents in any EA approval or other subsequent regulatory approval. It is the intent that in addition to key provincial ministries (MOE, MNR and MNDM) and First Nations close to the Ring of Fire area, industry, other levels of government, and academic institutions would also have a role to play.

On March 6, 2013, the Matawa Chiefs met with the Premier of Ontario and asked that the Government of Ontario join them in a negotiated regional process. On May 10, 2013, the Province committed to entering into a negotiated regional process. The Province intends to include the development of a regional long-term environmental monitoring program as part of these negotiations.

It should be noted that MOE, MNR and MNDM will already be in the Ring of Fire area this summer to commence baseline monitoring data collection of ground and surface water, terrestrial, and biodiversity as well as surficial geology within 50 km of the mine sites. Local First Nations are participating in these initiatives. This early baseline data will be integrated into the regional long-term environmental monitoring program.

### *Ministry of the Environment*

Ontario is committed to developing a regional long-term environmental monitoring framework for the Ring of Fire.

The government will work with local First Nations communities, the federal government and industry to develop the framework. The framework will take into consideration cumulative effects consistent with the ministry's Statement of Environmental Values.

Working with MNR, MNDM, Environment Canada and local First Nation communities, MOE will be collecting pre-development environmental baseline data this summer, which will feed into the regional long-term environmental monitoring framework.

Regional long term monitoring does not preclude the need for compliance monitoring to address the approved activities of individual companies, in fact this type of monitoring remains necessary as part of a broader monitoring framework.

First Nations communities and MOE/MNR/MNDM are working to develop a regional long-term environmental monitoring framework. The framework will take into consideration cumulative effects consistent with the ministry's Statement of Environmental Values. As the ECO notes, federal Environmental Assessments (EAs) include an assessment of cumulative effects, and MOE is continuing to co-ordinate project-specific environmental assessments with the federal government (federal EAs are still required for large mining projects).

Class EAs dealing with Crown disposition activities (under the MNR Resource Stewardship and Facility Development Class EA and MNDM Class EA) allow MNR and MNDM to determine whether a specific activity on crown land will have the potential to cause environmental effects. If MNR or MNDM determine that there is a potential for significant environmental harm, these Class EAs provide the flexibility to allow referral to the Minister of the Environment for designation to the full requirements of the *EAA*.

## 3.2 Land Use Planning: Blind-Eye Measurement and Milquetoast Monitoring

### *Ministry of Municipal Affairs and Housing*

From a policy development and monitoring perspective, the provincial land use planning ministries recognize the importance of, and have a long history of, working together. Ministries have collaborated on working towards the development of performance monitoring systems for the PPS and other provincial land use plans. With respect to the One Window Planning System, the provincial ministries involved are committed to the system and its continuous improvement through ongoing reviews of its protocols and procedures, with the goal of maximizing effectiveness.

In April 2010, a policy decision notice was posted on the Environmental Registry for the finalized Provincial Policy Statement Performance Indicators. These indicators were identified by an inter-ministry team led by MMAH and refined through consultation with stakeholders, municipalities and the public. The indicator results have not yet been finalized as we continue to update results as new data becomes available. One goal of monitoring programs is to inform decisions to improve policy frameworks. The Province is using preliminary results to inform the current PPS Review.

MMAH is leading an inter-ministry team developing and researching performance measures for the main policy themes of the Greenbelt Plan and Oak Ridges Moraine Conservation Plan, to help support the upcoming 10 year review. MMAH is closely co-ordinating with a number of other provincial monitoring programs including the Municipal Performance Measurement Program, and those of the Ontario Growth Secretariat and Conservation Authorities. MMAH is also liaising with the Niagara Escarpment Commission regarding its ONE Monitoring Program along the Escarpment, and with nongovernmental organizations such as the Friends of the Greenbelt Foundation on other monitoring programs.

### *Ministry of Natural Resources*

MNR's natural resource management functions include monitoring and reporting on the state of resources and ecosystems, as described in the Taking a Broader Landscape Approach discussion paper (Environmental Registry #011-7540). MNR is part of the inter-ministry teams led by the Ministry of MMAH that are researching and developing performance measures for the Provincial Policy Statement (PPS), the Greenbelt Plan and the Oak Rides Moraine Conservation Plan. MNR developed indicators related to its interests in the PPS and participated in stakeholder consultations on a proposed set of indicators. These are described in the PPS Performance Indicators, for which MMAH posted a decision notice on the Environmental Registry in April 2010 (#010-5700).

### *Ministry of the Environment*

As a participant in the One Window Planning Service, MOE retained significant roles and responsibilities including providing technical advice and data related to the ministry's mandate; publishing guidance documents to support implementation of policy direction; participating in municipal plan input and review; involvement in Ontario Municipal Board hearings; and engaging in performance monitoring.

MOE takes seriously its obligation to report publicly on progress related to Lake Simcoe. Public events have been held to launch each annual report, such as the March 2013 Minister's ice fishing event at Pefferlaw Fish Huts. Advisories related to the report release were sent to the public, including, members of the Lake Simcoe Coordinating Committee and the Lake Simcoe Science Committee; recreation organizations (including anglers); municipalities; the Lake Simcoe Regional Conservation Authority; Ladies of the Lake; agricultural groups; and First Nations. MOE has released annual reports covering 2010, 2011 and 2012 and has made these publicly available through its web-site. MOE will also ensure these reports are posted on the Environmental Registry.

## 3.3 Ontario's Forgotten Habitats: Tallgrass Communities, Alvars and Coastal Dunes

### *Ministry of Municipal Affairs and Housing*

The Provincial Policy Statement (PPS) represents the interests of various ministries involved in land use planning. In many cases, ministries use their technical expertise to formulate policy in areas related to their mandates. Throughout the PPS five-year review, MMAH has been working closely with MNR and other land use ministries to identify areas for potential revisions, including those related to the protection of natural heritage features, areas, and systems.

The draft policies released for consultation in September 2012 enhance protections to Great Lakes coastal wetlands and require identification of natural heritage systems in southern Ontario, where development pressures are greatest. These provisions are in addition to PPS policies that offer protection for specific features, such as habitat of endangered and threatened species, and significant wildlife habitat. In certain areas of the province, provincial plans such as the Greenbelt Plan also offer specific protections for tallgrass communities, coastal dunes and alvars.

### *Ministry of Natural Resources*

MNR relies on efforts of municipalities and other partnering agencies to help ensure the sustainable use and protection of the province's natural resources. This encompasses land use planning as a tool to maintain habitats. MNR's Significant Wildlife Habitat Technical Guide (SWHTG) supports planning authorities in implementing the Provincial Policy Statement, 2005 (PPS). The SWHTG identifies categories of wildlife habitat that should be assessed for significance and considered for planning protection. This promotes the protection of rare vegetation communities.

The PPS requires the long-term ecological function and biodiversity of natural heritage systems be maintained, restored or where possible, improved. Supporting the PPS, and assisting planning authorities, MNR's Natural Heritage Reference Manual describes natural heritage system components and provides a checklist of related planning considerations. The manual states that system cores areas have a mix of ecosystem types, referencing grasslands, alvars, woodlands, wetlands; and lists tall grass prairies, savannahs and Great Lakes dunes as rare vegetation communities that support biodiversity. Thus, planning authorities will recognize the need to plan for these elements.

To support private land stewardship and the protection or restoration of sensitive ecosystems MNR manages several existing programs (Conservation Land Tax Incentive Program, Managed Forest Tax Incentive Program, Species at Risk Stewardship Fund) and the recently announced Land Stewardship and Habitat Restoration Program. This new grant program is focused on funding local and regional scale biodiversity conservation projects. Significant growth in the number of stakeholders engaged in stewardship, and their capacity to deliver resource management activities, means the ministry will now support a wider range of community stewardship groups and initiatives through Partnership Specialist positions.

## 3.4 Who Hunts Snapping Turtles?

### *Ministry of Natural Resources*

Snapping turtle remains widespread and locally abundant in southern Ontario. MNR undertakes measures to ensure the species' long-term survival, including prohibiting the commercial harvest of snapping turtle and protecting its wetland habitat. MNR will work with the federal government to fulfil species at risk management planning requirements. These efforts will consider the range of pressures affecting snapping turtle to inform actions needed to support the sustainability of the species.

Information collected through the 2010 Survey of Recreational Fishing in Canada indicates the harvest of snapping turtle in Ontario is minimal. Mandatory harvest reporting for snapping turtle was implemented in July 2012 to collect additional and more detailed information on harvest and hunter activity in the province (e.g., harvest locations, hunting efforts, etc.). MNR is continuing to communicate and promote compliance with the new reporting requirement, and hunters are now able to report their snapping turtle harvest online.

## Part 4: Developing Enviornmental Policy

### 4.1 Ontario Government Plan to Conserve Biodiversity

***Ministry of Natural Resources***

Fulfilling a 2005 commitment, the Ontario Biodiversity Council led the review and renewal of the 2005 biodiversity strategy, which culminated in the release of Ontario's Biodiversity Strategy 2011 (OBS 2011). During this process, Council was guided by the new Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets under the UN Convention on Biological Diversity. Ontario's new strategy, like its predecessor and the global strategy, maintains that biodiversity conservation requires the engagement of all stakeholders as well as broad societal consensus and participation.

Ontario's Biodiversity Council serves as a focal point for mainstreaming biodiversity across sectors and society. The OBS 2011 urged all sectors, including government, to develop plans that adopt its vision and goals, and to identify specific actions to help achieve them. "Biodiversity: It's In Our Nature," the Ontario government's plan, is the first sector-based plan released under the strategy. The plan outlines conservation actions and activities that 16 provincial ministries will undertake alone, collaboratively or with partners. Ontario is committed to supporting Council in monitoring and reporting to the public the results of Ontario's collective efforts toward achieving the OBS 2011 vision, goals and target.

### 4.2 Stopping the Spread: The Ontario Invasive Species Strategic Plan

***Ministry of Natural Resources***

The Ontario Invasive Species Strategic Plan (OISSP) outlines a framework and an action plan to address threats posed by invasive species.

The OISSP states that "each year Ontario ministries will use the Strategic Plan to work with partners and stakeholders as appropriate to make decisions on key priorities for action." The OPS Biodiversity Network, which includes MMAH, provides a cross ministry forum to discuss roles and responsibilities for pre-eminent threats to biodiversity such as invasive species. MNR will continue to work through this Network to address broader needs identified in the OISSP. The Ontario government is committed to the fight against invasive species. MNR has invested $7.7 million toward the establishment and operation of the Invasive Species Centre in Sault Ste. Marie with an additional $1.16 million for 2013/14. This funding supports basic operations, allowing the Centre to develop, and build partnerships. MNR's invasive species funding was enhanced by $750K for 2013/14 for prevention, early detection, rapid response and management. Funding programs to help municipalities and community groups control invasives include MNR's new Land Stewardship and Habitat Restoration Program and the Ministry of the Environment's Great Lakes Guardian Community Fund.

## 4.3 Neglected Obligations: No Conservation Planning for Polar Bears

***Ministry of Natural Resources***

MNR remains committed to the timely development of a government response statement for Polar Bear. MNR is fully and comprehensively considering the complexity of information on the species' recovery, and will post the draft government response statement for Polar Bear for public comment on the Environmental Registry. Through the Species at Risk Stewardship fund, MNR is supporting Fort Severn First Nation in gathering species information and contributing to the management of threats in the area.

## 4.4 Stalling Progess: No Conservation Planning for Lake Sturgeon

***Ministry of Natural Resources***

MNR is considering information received on Lake Sturgeon recovery, and remains committed to timely development of a government response statement, and posting it for comment on the Environmental Registry. The Species at Risk Stewardship Fund supports recovery actions for Lake Sturgeon through science, monitoring, traditional knowledge, and habitat restoration projects. MNR and waterpower operators have been working together to develop and implement measures to minimize adverse effects on the species, and establish a consistent approach to monitoring.

## 4.5 Missing Metrics: The Lake Simcoe Fish Community Objectives

***Ministry of Natural Resources***

The Lake Simcoe Fish Community Objectives provide a common goal and comprehensive set of objectives that guide MNR fisheries decisions. It also guides the collective efforts of agencies and organizations to manage the aquatic resources of the lake and its watershed.

Metrics in the Lake Simcoe Protection Plan (LSPP), and the contents of the Objectives document, focus on the restoration of native self-sustaining populations in the lake in response to stressors like climate change and invasive species. Invasive species are a specific focus, as they are, and will continue to be part of the fish community and aquatic food web.

In Ontario, recreational fishing contributes some $2.5 billion to the province's economy. MNR ensures these significant socio-economic benefits continue through sound fisheries management, monitoring and regulation. Lake Simcoe is the most intensively fished inland lake in the province. Its fish community and fisheries have been monitored since the early 1960s, and continues to be the focus of significant assessment and research.

Stocking is a fisheries management tool used across Ontario to support fisheries and restore native species. In 2010, MNR reduced lake trout stocking to facilitate the natural reproduction of the population in Lake Simcoe.

***Ministry of the Environment***

No response.

## 4.6 Protected Areas Planning: A Lost Priority

***Ministry of Natural Resources***

No response.

## 4.7 Shale Gas – Regulate Before Fracking Begins

### *Ministry of Natural Resources*

MNR has a well-defined regulatory framework for managing petroleum drilling and production. In collaboration with MOE, MNR is reviewing this framework to determine if any gaps need to be addressed to ensure any extraction of unconventional petroleum in Ontario could be done safely. MNR and MOE are examining activities and regulations in other jurisdictions, including developments from the United States' Environmental Protection Agency's study of the potential impact of hydraulic fracturing on human health and the environment (draft expected in December 2014).

At this time, there is no indication that Ontario hosts economic reserves of shale gas; no extraction is occurring in the province and there are no proposals before MNR requesting shale gas drilling or extraction.

The Ontario Geological Survey continues its assessment of bedrock in southern Ontario for its potential to host shale gas.

### *Ministry of the Environment*

MOE appreciates the ECO's concern regarding potential use of hydraulic fracturing to extract shale gas and is pleased to collaborate with MNR on the review of the regulatory framework for managing petroleum drilling and production.

As part this review, the ministries are analyzing current scientific information as well as the approaches used by other jurisdictions to ensure that we continue to protect the environment and human health.

## 4.8 Channelling the Earth's Energy: Ground-Source Heating and Cooling Systems

### *Ministry of the Environment*

MOE welcomes the ECO's positive comments regarding the new regulatory framework and approvals process for vertical closed-loop geothermal systems.

MOE has been undertaking inspections of all Environmental Compliance Approvals (ECA) holders during the construction and installation of vertical closed-loop geothermal systems to ensure compliance with the regulatory and approval requirements.

The ministry continues to work closely with the geothermal industry to ensure that regulatory requirements are understood and are being met. Ongoing monitoring of this sector also presents additional opportunities for outreach and education with companies that hold ECAs to help address compliance issues and best practices for the installation of geothermal systems.

## 4.9 From Peak P to P Soup: The Phosphorus Challenge on Ontario Farms

### *Ministry of Agriculture and Food; Ministry of Rural Affairs*

Ontario supports the important goal of sustainable management of phosphorus. Sustainable nutrient use is a priority for regulatory, stewardship and research programs. Industry and government co-operatively emphasize the 4Rs of nutrient management: right source, right rate, right time, and right place. The ECO's suggested themes of phosphorus reduction, retention, recycling and replacement are consistent with this approach.

Phosphorus management in the Great Lakes has become more complex with the transformation of ecosystems by dreissenid mussels, recognition of the importance of sources of phosphorus in sediments, climate change and changes in availability of dissolved reactive phosphorus.

Since the 1980s, phosphorus fertilizer use in Ontario declined and crop removal of phosphorus increased, reducing soil phosphorus levels. Phosphorus contributions from Ontario sources will be estimated and strategies for management developed by federal and provincial bodies. Some of the most significant phosphorus sources affecting Lake Erie are in Ohio, where fertilizer application practices can result in pollution.

Management and conservation of the supply of phosphate rock for the long term is important and must be tackled on an international and national level. Phosphorus recovery is an emerging issue being examined by many jurisdictions. OMAF and MOE recently sponsored a Canadian Council of Ministers of the Environment webinar on phosphorus supply and recovery. As the ECO notes, soil organisms and organic matter play important roles in phosphorus use. Soil ecology is a growing focus of education, outreach, and research, with increasing emphasis on soil health.

# Part 5: Taking Action to Manage and Protect the Environment

## 5.1 A Renewed Commitment to Great Lakes Protection

***Ministry of the Environment***

MOE appreciates the ECO's positive comments regarding our work to protect the Great Lakes. We know that new challenges are overwhelming old solutions. That is why we need new initiatives to help the Great Lakes, such as Ontario's Great Lakes Strategy and the proposed *Great Lakes Protection Act*.

Ontario is now in the process of implementing the 113 priorities for action set out in Ontario's Great Lakes Strategy, and MOE is co-ordinating implementation across ministries who share responsibilities for the Great Lakes.

The proposed *Great Lakes Protection Act*, Bill 6, is designed to give the Province new tools to restore and protect our Great Lakes, so they are drinkable, swimmable and fishable. The goals of Ontario's Great Lakes Strategy are consistent with the purposes of the proposed legislation. Ontario looks forward to putting in place a new Canada-Ontario Agreement (COA) that ensures Canada and Ontario both do their part to protect the Great Lakes. Ontario's Great Lakes Strategy forms the basis for Ontario's priorities in the negotiation of the new COA.

The Province looks forward to working with all of its partners and those who live, work, and play in the Great Lakes as we move forward on meeting our commitment to protect the Great Lakes.

## 5.2 Expansion of MOE's Environmental Activity and Sector Registry

***Ministry of the Environment***

MOE appreciates the ECO's comments on the expansion of the Environmental Activity and Sector Registry program. The ministry remains committed to transforming ministry licensing, permitting and approvals processes while ensuring environmental protection.

The compliance and enforcement approach for prescribed activities will be risk-based and will draw on international "good" practice and on the full and growing range of regulatory tools available. Inspection has, and will remain, an important part of our regulatory toolkit. It will be complemented by other regulatory tools to assess, encourage and, where necessary, bring facilities into compliance. The approach will focus on ensuring that businesses know what they need to do (e.g., outreach), monitoring what they are doing (e.g., self-assessment, desk audit and inspection), and taking enforcement action proportionate to the potential or actual environmental impact. The approach will be supported by a new electronic tracking system to better manage approvals related information for compliance purposes.

## 5.3 Plans and Permits: New Requirements for Early Mineral Exploration

***Ministry of Northern Development and Mines***

The *modernization of the Mining Act* was not intended to overlap other federal and provincial statutes regulating exploration activities (e.g., *Fisheries Act*, Ontario and Canadian Environmental Protection Acts, *Endangered Species Act*). Also, compliance with the *Mining Act* does not exempt anyone from compliance with any other relevant statute. MNDM has consulted with its standing stakeholder advisory committee with respect to the discretion to require a permit for activities that fall within an exploration plan and has committed to review the scope of that discretion.

The Minister of Northern Development and Mines has the authority to withdraw lands from staking. This discretion is exercised in support of initiatives put forward by MNDM and other ministries (e.g., Sites of Aboriginal Cultural Significance, Ontario's Living Legacy, the *Far North Act*). MNDM remains committed to the purpose of the *Mining Act*, which includes minimizing the impact of mineral exploration and development activities on public health, safety and the environment.

## 5.4 Rehabilitating Abandoned Mines

***Ministry of Northern Development and Mines***

Since 1999, through the Abandoned Mines Rehabilitation Program (AMRP), MNDM has undertaken mine rehabilitation projects on 80 of the highest priority abandoned mine sites located throughout Ontario. Most of these sites were located on Crown-held lands, and the rehabilitation work conducted has ensured the protection of public health and safety, and the environment.

MNDM appreciates the ECO's interest in the AMRP and the good results that have been achieved through the various projects that have been conducted under the program. MNDM agrees with the ECO that there is much more work remaining to be done, and is currently developing action plans and designs for several of the next highest priority sites.

## 5.5 Air Emissions from an Asphalt Blending Facility

***Ministry of the Environment***

The ministry acknowledges the ECO's concerns on this matter. MOE took appropriate action, inspecting the facility and issuing an order, to ensure McAsphalt was operating in compliance with the *EPA*.

While the company applied for ministry approval, the ministry confirmed that appropriate safeguards were in place including appropriate emission controls, procedures to minimize spills, and proper shipping processes to meet federal requirements. These measures ensured the company could operate in a way that was protective of the surrounding community and environment.

The ministry allowed continued operations, while at reduced capacity, as the necessary approval was sought.

## 5.6 A New Compost Framework for Ontario

***Ministry of the Environment***

No response.

## 5.7 Using the *EPA* to Regulate the Safe Disposal of Waste Pharmaceuticals and Sharps

***Ministry of the Environment***

MOE appreciates the ECO's support of the ministry's use of the individual producer responsibility approach (IPR) in O.Reg 298/12.

This regulation focuses on pharmaceuticals and sharps generated by residents as they may not have access to a convenient collection location to properly dispose of these products.

In Ontario there are existing regulations and a well-established system for the collection and proper disposal of pharmaceuticals and sharps generated by institutions in sectors, such as health care and veterinary care. These institutions typically have strict protocols for the proper management of pharmaceutical and sharp products.

## 5.8 Filling the Gaps in the Regulation of Fine Particulate Matter

***Ministry of the Environment***

Ontario effectively addresses $PM_{2.5}$ by regulating the emissions of contaminants that form fine particulates in air. Since 2003, ambient levels of $PM_{2.5}$ in Ontario have reduced by 30 per cent. This positive trend will continue as further efforts to address particulates are brought into place. Ontario championed the development of new national standards for $PM_{2.5}$ and ozone. These standards will drive air quality improvements across the country. Ontario will begin to report on these new standards, measures and their impacts on air quality in 2014.

Ontario has also ensured reduced emissions from the transportation sector – the single largest source of smog pollution in the province. Ontario championed the development of a national multi-agency body – the Mobile Sources Working Group – which has proposed an action plan to achieve further emission reductions from this sector.

# ABBREVIATIONS

| | |
|---|---|
| **AAQC** | Ambient Air Quality Criteria |
| **AMIS** | Abandoned Mines Information System |
| **AMRP** | Abandoned Mine Rehabilitation Program |
| **ANSI** | Area of Natural and Scientific Interest |
| **AOC** | Area of Concern |
| **AQMS** | Air Quality Management System |
| **BC** | British Columbia |
| **BMP** | best management practice |
| **CAAQS** | Canadian Ambient Air Quality Standards |
| **CAPP** | Canadian Association of Petroleum Producers |
| **CCME** | Canadian Council of Ministers of the Environment |
| **CDM** | Conservation and Demand Management |
| ***CEAA*** | *Canadian Environmental Assessment Act* |
| **CGC** | Canadian Geoexchange Coalition |
| **COA** | Canada-Ontario Agreement (Respecting the Great Lakes Basin Ecosystem) |
| **CSA** | Canadian Standards Association |
| **CWS** | Canada Wide Standards (for Particulate Matter [PM] and Ozone) |
| ***EAA*** | *Environmental Assessment Act* |
| **EASR** | Environmental Activity and Sector Registry |
| ***EBR*** | *Environmental Bill of Rights, 1993* |
| **ECA** | Environmental Compliance Approval |
| ***EPA*** | *Environmental Protection Act* |
| **EPR** | extended producer responsibility |
| **ERT** | Environmental Review Tribunal |
| ***ESA*** | *Endangered Species Act, 2007* |
| ***FWCA*** | *Fish and Wildlife Conservation Act, 1997* |
| **GHG(s)** | greenhouse gas(ses) |
| ***GLPA*** | *Great Lakes Protection Act* |
| **GLWQA** | Great Lakes Water Quality Agreement |
| **GTA** | Greater Toronto Area |
| **GTHA** | Greater Toronto and Hamilton Area |
| **ha** | hectare |
| **IFO** | industry funding organization |
| **IPR** | individual producer responsibility |
| **K** | potassium (element and plant nutrient) |
| **kg(s)** | kilogram(s) |
| **km(s)** | kilometre(s) |
| ***LRIA*** | *Lakes and Rivers Improvement Act* |
| **LSPP** | Lake Simcoe Protection Plan |
| **LTA** | leave to appeal |
| **m** | metre(s) |
| **MHSW** | Municipal Hazardous or Special Waste |
| **MMAH** | Ministry of Municipal Affairs and Housing |
| **MNDM** | Ministry of Northern Development and Mines |
| **MNR** | Ministry of Natural Resources |
| **MOE** | Ministry of the Environment |
| **MOI** | Ministry of Infrastructure |
| **MPMP** | Municipal Performance Measurement Program |
| **MTO** | Ministry of Transportation |
| **N** | nitrogen (element and plant nutrient) |
| **NEC** | Niagara Escarpment Commission |
| **NEP** | Niagara Escarpment Plan |
| ***NMA*** | *Nutrient Management Act, 2002* |
| **OBOA** | Ontario Building Officials Association |
| **OGS** | Ontario Geological Survey |
| ***OGSRA*** | *Oil, Gas and Salt Resources Act* |
| **OISSP** | Ontario Invasive Species Strategic Plan |
| **OMAF** | Ontario Ministry of Agriculture and Food |
| **OMAFRA** | Ontario Ministry of Agriculture, Food and Rural Affairs |
| **OMB** | Ontario Municipal Board |
| **OMRA** | Ontario Ministry of Rural Affairs |
| **ORMCP** | Oak Ridges Moraine Conservation Plan |
| **ORMF** | Oak Ridges Moraine Foundation |
| ***OWRA*** | *Ontario Water Resources Act* |
| **P** | phosphorus (element and plant nutrient) |
| **PCB** | polychlorinated biphenyl |
| ***PLA*** | *Public Lands Act* |
| **PM** | particulate matter |
| **$PM_{2.5}$** | particulate matter less than 2.5 microns in diameter |
| ***PPCRA*** | *Provincial Parks and Conservation Reserves Act, 2006* |
| **PSS** | Provincial Policy Statement, 2005 |
| **PTTW** | Permit to Take Water |
| **R-SEA** | Regional Strategic Environmental Assessment |
| **SOM** | soil organic matter |
| **SSEA** | Severn Sound Environmental Association |
| ***WDA*** | *Waste Diversion Act* |
| **WDO** | Waste Diversion Ontario |
| **WEEE** | Waste Electrical and Electronic Equipment |

# INDEX

**A**

abandoned mines; 27, 137, 151-155, 184, 186
Aboriginal; 33, 58, 63, 71, 87, 100, 148-150, 184
Access Environment; 144
adaptation; 17, 97, 101, 109-111, 142
aggregate; 13, 51, 66, 68, 78, 84, 86, 153
aggregate extraction; 78, 84, 86
*Aggregates Resources Act*; 13, 153
agriculture; 83, 84, 129-135, 160
air emissions; 28, 156, 184
air quality; 167-168, 185, 186
alvars; 82-86, 179
appeals; 10-11, 13, 19, 20, 34-39, 146, 156-157, 186
application for investigation; 10, 29, 156-158
application for review; 10, 28-29, 89, 113, 121
approvals modernization; 13, 50, 53, 146
aquatic ecosystem; 130, 135
arsenic; 29, 66, 152
Attorney General; 39

**B**

bald eagle; 15
Beausoleil Island; 43
*Bees Act*; 13
Bill 100; 140-141
Bill 55; 11, 47-48, 53, 54, 55-56, 112-113, 174
Bill 6; 140-141, 183
biodiversity; 41, 48, 64, 71, 81, 85, 87-88, 93-101, 109, 111, 112, 114, 118, 134, 138, 140, 142, 170, 176, 177, 179-180
biosolids; 134, 159-161
bobolink; 17, 83
budget; 11, 46-48, 52-54, 55-60, 87, 102, 112-113, 117, 153, 155, 172-173, 174-175

**C**

capacity; 5, 46, 101, 105, 145, 166, 179, 185
Class EA (see: class environmental assessment)
class environmental assessment (Class EA); 21-27, 73, 154, 170, 177
climate; 5, 17-18, 71, 81, 94, 97, 101, 103, 105, 108-111, 138, 140, 142, 181, 183
Code of Practice – Preparing, Reviewing and Using Class EAs in Ontario (2009); 25
Community-based Land Use Plans; 13, 72-73
compliance; 7, 9, 16-17, 19, 29-30, 35-36, 69, 80, 90, 106, 126-127, 144-147, 156-157, 159, 164-168, 177, 180, 182-184, 186
compost, composter, composting; 133-135, 137, 158-161, 185
*Conservation Authorities Act*; 17
conservation reserves; 24, 85, 112-118
contaminants; 125-126, 129, 152-153, 160-161, 166-167, 185

**D**

decision notice; 12-16, 19-21, 34, 37, 50, 105, 127, 140, 145, 157, 174, 178
declaration order; 24, 27
dunes; 82-86, 179

**E**

*EAA* (see: *Environmental Assessment Act*); 21, 23-27, 72-73, 75, 177, 186
earth energy; 123-128
EASR (see: Environmental Approval and Sector Registry); 144-147, 186
eastern meadowlark; 17
*EBR* (see: *Environmental Bill of Rights*); 7-11, 13-20, 21-23, 25-27, 28-29, 30, 31-33, 34-40, 41-42, 47, 50, 53, 55-56, 84, 89-90, 99, 113, 121, 127-129, 140-143, 146, 148-150, 156-158, 172, 174, 186
ECA (see: Environmental Compliance Approval); 126-129, 144-145, 156-157, 159, 160, 168, 182, 186
ecosystem-based; 50
EDU (see: Ministry of Education); 9, 12, 30, 186
emergency; 16, 127
*Endangered Species Act, 2007*; 15, 17, 21, 47, 51, 85, 88, 103, 105, 109, 186
ENG (see: Ministry of Energy); 9, 10, 12, 13, 28, 30, 32, 186
environmental approval; 74, 144, 145, 168
Environmental Activity and Sector Registry (EASR); 144, 183, 186
environmental assessment; 21-27, 67-69, 72-75, 154, 168, 170, 175, 177, 186
*Environmental Assessment Act* (*EAA*); 21, 23, 27, 72, 186
*Environmental Bill of Rights*; 7, 11, 14, 19, 21, 23, 28, 30, 31, 34, 39, 40, 41, 47, 55, 89, 113, 117, 121, 127, 146, 148, 156, 172, 186
Environmental Commissioner of Ontario; 7, 40, 42, 97
Environmental Compliance Approval (ECA); 35, 36, 126, 144, 156, 159, 168, 182, 186
environmental decision making; 7, 11, 14, 21, 22, 56, 69, 71, 172
environmental monitoring (see: monitoring) 41, 60, 63, 68-72, 74, 80, 82, 170, 176-177
*Environmental Protection Act* (*EPA*); 15, 16, 28, 37, 121, 126, 156, 161, 167, 184, 186
Environmental Registry; 8-9, 11-20, 21-22, 23, 25-27, 30, 32-33, 35, 37-39, 49-53, 55, 79-80, 90, 101, 105, 126-129, 139-143, 144-146, 148-149, 156-157, 170, 174-175, 178, 181
Environmental Review Tribunal (ERT); 35, 39, 186

environmentally significant; 7-10, 11-19, 21-22, 23-27, 30-33, 55-57, 85, 113, 149-150, 174-175,
*EPA* (see: *Environmental Protection Act*)
EPR (see: extended producer responsibility)
equivalent public participation; 16
erosion; 24, 84, 108, 130, 134, 154
ERT (see: Environmental Review Tribunal)
*ESA* (see: *Endangered Species Act, 2007*)
eutrophication; 131-133
exception notice(s); 8, 16, 127
exploration permit(s); 147-150
exploration plan(s); 147-150, 184
extended producer responsibility (EPR); 161-165
extinction; 21
extirpation; 21, 83, 104, 109

## F

Far North; 13, 28, 63-75, 103, 170, 175-176, 184
*Far North Act*; 13, 65, 72, 74, 75, 175, 184
fertility; 133, 158
fine particulate matter; 166-169
fish, fishing; 42, 47, 65, 66, 88, 90, 99, 105, 107-111, 112, 116-118, 137-141, 170, 174, 178, 180-181, 183-184, 186
*Fish and Wildlife Conservation Act, 1997*; 15, 51, 55, 89, 186
fisheries management; 181
Forest Management Plan; 15, 47, 51
fracking; 29, 119-122, 182
funding; 46, 48, 52, 70-71, 80, 86-88, 100-103, 114, 116, 118, 140, 143, 152-153, 155, 161, 173, 175-176, 179, 180, 186

## G

geoexchange; 123-129, 186
Georgian Bay Islands National Park; 43
geothermal; 123-128, 182
*Good Government Act, 2006*; 19
government response statements; 89, 103-104, 105-106, 181
grassland(s); 83, 86, 134, 179
Great Lakes; 40, 82-87, 101, 105, 132, 137-143, 179, 181, 183, 186
*Great Lakes Protection Act, 2012/2013*; 138, 140, 183, 186
Greater Golden Horseshoe; 76, 79
Greater Toronto Transportation Authority (see: Metrolinx); 33
Green Focus on Innovation and Technology (GreenFIT) Strategy; 17
Greenbelt; 63, 76, 79-86, 109, 178-179
GreenFIT Strategy (see: Green Focus on Innovation and Technology)
ground-source heat pump; 123-129
guideline; 16, 26, 93, 110, 125, 134, 149, 158-161, 166-168

## H

hunting; 47, 65, 66, 88-91, 116-117, 180
hydro-electric dams; 66

## I

information notices; 13-16, 22, 25, 27, 32, 33, 127-128
instruments; 7-10, 11-14, 19-20, 21-23, 26, 30-33, 34-40, 127, 148
invasive species; 50, 81, 84, 93, 94, 99-103, 108-109, 118, 180-181, 186

## L

Lake Simcoe; 13, 76, 81-82, 107-111, 170, 178, 181, 186
Lake Simcoe Fish Community Objectives; 13, 107, 170, 181
Lake Simcoe Protection Plan; 76, 81, 107, 181, 186
lake sturgeon; 66, 93, 105-106, 181
land stewardship (see: stewardship)
land use planning; 65, 67, 74-75, 76-82, 95, 102, 147, 170, 176, 177, 179
landscape approach; 49-52, 174-175, 178
lawsuit(s); 10, 34, 39
leave to appeal (LTA); 11, 13, 19, 35-39, 146, 156-157, 186
Legislative Assembly; 7, 89, 172-173
licences (see: instruments)
LTA (see: leave to appeal)

## M

manual; 17, 179
MCS (see: Ministry of Consumer Services)
MEDI (see: Ministry of Economic Development and Innovation)
metals; 66, 151, 152, 159-160
Metrolinx; 33
*Metrolinx Act, 2006*; 33
MGS (see: Ministry of Government Services)
mineral exploration; 51, 147-150, 184
mining; 27, 64, 66, 68, 73-74, 112, 147, 150, 151-155, 160, 175, 177
*Mining Act*; 24, 25, 27, 73, 147, 154, 184
*Mining Amendment Act 2009*; 147, 150
Minister's Zoning Order; 15
Ministry of Consumer Services (MCS); 9, 10, 12, 19, 20
Ministry of Economic Development and Innovation (MEDI); 9, 12, 17
Ministry of Education (EDU); 9, 30
Ministry of Energy (ENG); 9, 10, 15, 24, 30, 32
Ministry of Government Services (MGS); 9, 12, 17, 173
Ministry of Health and Long-Term Care (MOHLTC); 9, 10, 12, 58
Ministry of Labour (MOL); 9, 12
Ministry of Municipal Affairs and Housing (MMAH); 9, 10, 15, 19, 30, 39, 76, 102, 129, 177, 179, 186
Ministry of Natural Resources (MNR); 4, 9, 10, 15, 17, 19, 21, 24, 31, 40, 45, 46, 55, 57, 70, 76, 77, 83, 87, 88, 93, 97, 99, 103, 104, 105, 107, 112, 118, 119, 126, 139, 154, 174, 175, 178, 179, 180, 181, 182, 186

Ministry of Northern Development and Mines (MNDM); 9, 10, 15, 19, 24, 25, 27, 64, 70, 73, 82, 95, 147, 151, 154, 176, 184, 186
Ministry of the Environment (MOE); 4, 9, 10, 11, 14, 15, 17, 19, 23-25, 31, 46, 56, 57, 59, 71, 76, 93, 95, 99, 108, 109, 119, 123, 125, 134, 137, 139, 144, 152, 156, 158, 161, 167, 175, 177-178, 181-185, 186
Ministry of Tourism, Culture and Sport (MTCS); 9, 12
Ministry of Transportation (MTO); 9, 10, 12, 15, 24, 33, 40-41, 99, 101, 186
mitigation; 17, 69, 72, 74, 120
MMAH (see: Ministry of Municipal Affairs and Housing); 9, 10, 12, 13, 19, 20, 28, 41, 76, 78-79, 82, 102, 178-179, 180, 186
MNDM (see: Ministry of Northern Development and Mines); 9, 10, 12, 13, 16, 19, 20, 27, 60, 70, 72, 74-75, 95, 147-150, 151-155, 170, 176-177, 184, 186
MNR (see: Ministry of Natural Resources); 9, 10, 12-13, 15, 16, 17-18, 19-20, 21-22, 24, 28-29, 31, 40, 41, 45-54, 55-56, 57-60, 70-71, 72-75, 76, 80, 82, 83-87, 88-91, 93-98, 99-102, 103-104, 105-106, 107-111, 112-118, 119-122, 170, 174-177, 178, 179, 180, 181, 182, 186
modernization; 13, 50-54, 144, 146-147, 175, 184
MOE (see: Ministry of the Environment); 4-5, 9, 10, 11-16, 19, 20, 23, 25-27, 28-31, 41, 57-60, 71, 72-75, 76, 81-82, 99, 101-102, 109, 111, 119, 121, 122, 123, 125, 126, 127-129, 139-145, 144-147, 152, 154, 156-157, 158-160, 161-165, 166-169, 170, 175-178, 182-185, 186
MOHLTC (see: Ministry of Health and Long-Term Care)
MOL (see: Ministry of Labour)
monitoring; 25, 26, 40, 41, 43, 53, 60, 63, 67, 68-72, 74, 76-82, 90-91, 94-98, 99-100, 110, 112, 116, 118, 143, 145-147, 153, 154, 157, 161, 170, 175-178, 180-184
MTCS (see: Ministry of Tourism, Culture and Sport)
MTO (see: Ministry of Transportation)
Municipal Hazardous or Special Waste (MHSW) Program; 17, 161-165, 186

## N

natural gas; 119-122, 124-126, 128
natural heritage; 46, 57, 60, 78, 80, 81, 84, 88, 117, 122, 176, 179
Niagara Escarpment; 17, 55, 76, 80, 178
non-native species; 110
non-operating status; 17, 18, 49
North Beach Provincial Park; 17
nutrient; 33, 108, 129-135, 158, 160, 182, 186
*Nutrient Management Act, 2002*; 33, 135

## O

O. Reg. 681/94; 9, 10, 21, 31, 34
O. Reg. 73/94; 9, 31
Oak Ridges Moraine; 41, 63, 76, 80-81, 109, 178, 186
Oakville; 126, 128, 167
odour; 156-157, 158-161
Officer of the Legislative Assembly; 7, 172
*Oil, Gas, Salt and Resources Act*; 29
OMAF (see: Ontario Ministry of Agriculture and Food); 9, 10, 133-135, 183, 186
OMAFRA (see: Ministry of Agriculture, Food and Rural Affairs); 9, 10, 12, 13, 99, 100, 101, 186
OMB (see: Ontario Municipal Board)
OMRA (see: Ontario Ministry of Rural Affairs)
Ontario Heritage Trust; 33, 86, 87
Ontario Ministry of Agriculture and Food (OMAF); 9, 10, 133-135, 182-183
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA); 12, 13, 99, 100, 101
Ontario Ministry of Rural Affairs (OMRA); 9, 10, 182, 186
Ontario Municipal Board (OMB); 35, 38, 39, 178, 186

## P

park(s); 17, 18, 21, 40-43, 46-49, 51-53, 55, 80, 85-87, 88, 112-118, 174, 175, 186
PCB; 16, 138, 186
peak phosphorus; 131-135
Permit to Take Water (PTTW); 35, 36, 125, 186
permit-by-rule; 50, 51, 144, 147
permits (see: instruments); 9, 13, 15, 21, 22, 26, 34, 50, 51, 68, 90, 106, 125, 129, 147-150, 161, 184
pharmaceuticals; 137, 160, 161-165, 185
phosphorus (P); 108, 129-135, 138, 182-183, 186
phosphorus cycle; 129-131
piping plover; 40-41, 84
plain language; 13
planning; 17, 23, 37, 39, 48-51, 65, 67, 71-75, 76-82, 95, 102, 103-104, 105-106, 107, 112-118, 133, 139-143, 145-147, 170, 175-181
*Planning Act*; 37, 39, 76
PM$_{2.5}$; 166-169, 185
polar bears; 64, 93, 103-104, 115, 181
policy; 7, 10, 12, 13, 17-18, 23-27, 49-51, 54, 69-71, 72, 74, 76, 78, 80, 84, 93-135, 139, 141, 144, 146, 147, 150, 165, 167-168, 170, 177-181
pollution; 4-5, 58, 66, 83, 88, 94, 105, 109, 119, 131-135, 158, 167, 183, 185
prescribe(d); 8-16, 19, 22-23, 25-26, 28-29, 30-33, 34-35, 37, 39, 40, 55-56, 83, 86, 106, 127, 143, 144-146, 148-149, 161, 183
prescribing; 8, 32-33, 144, 146
printing; 144-145
program evaluation; 142
proposal notice(s); 11-13, 15-17, 19-20, 21, 23, 25-27, 32-33, 51, 127, 140, 144, 146, 156, 175
protected area(s); 18, 66, 93, 112-118, 170, 174, 175, 181
Provincial Park(s); 17, 18, 21, 24, 40-42, 46-54, 55, 85-87, 88, 112-118
Provincial Policy Statement; 76, 78, 84, 178, 179

PTTW (see: Permit to Take Water)
public consultation; 9, 12-13, 16-19, 21-22, 24, 26-27, 49-50, 53, 55-56, 73, 90, 101, 112, 114, 117, 127, 139-141, 144, 146, 176
public nuisance; 10, 34, 39

## R

REA (see: renewable energy approval); 14, 37
rehabilitation; 27, 43, 122, 138, 147-149, 151-155, 160, 184, 186
renewable energy approval (REA); 14-15, 37-38
Ring of Fire; 63-75, 170, 175-177
risk-based; 52-54, 183
run-off; 83, 130, 133, 134

## S

section 29; 16
SEV (see: Statement of Environmental Values); 7-9, 11, 14-15, 17-18, 30-31, 55-56
Severn Sound; 43, 186
Severn Sound Environmental Association (SSEA); 43, 186
sewage; 4-5, 35, 108, 130-134, 144, 159-160
shale gas; 93, 119-122, 182
sharps; 161-165, 185
snapping turtle(s); 88-91, 179, 180
soil(s); 17, 28, 45, 66, 83-84, 108, 123, 125, 130-135, 149, 158-162, 183, 186
solar; 37-38, 122-123, 144-145
species at risk; 21-22, 47-48, 51, 66, 83, 85, 87, 89-90, 104, 106, 112, 115, 179-181
SSEA (see: Severn Sound Environmental Association); 43, 186
standards; 15, 69, 101, 106, 119, 122, 125-127, 137, 144-150, 151, 158-160, 163, 166-168, 185, 186
standby power; 144-145
Statement of Environmental Values (SEV); 8, 30, 32, 55, 167, 177
statutory timeline(s); 8, 29
*Strong Action for Ontario Act (Budget Measures), 2012*; 11, 47, 55, 112
sustainability; 7, 17, 33, 47, 111, 139, 174, 180

## T

Technical Standards and Safety Authority (TSSA); 19
transformation; 45, 46-54, 60, 87, 113, 174-175, 183
transparency; 13, 21, 26, 55, 56, 70, 97, 121, 122, 129, 143, 149
TSSA (see: Technical Standards and Safety Authority); 19, 20
user-fee; 116, 118, 170

## W

Wasaga Beach; 40-41, 84, 115
waste; 4-5, 16, 17, 35, 36, 41, 42, 66, 119, 121, 130, 133, 134, 137, 138, 144-145, 149, 151-153, 158-160, 161-166, 185, 186
waste diversion; 158, 161, 163-166, 186
Water Sector Strategy; 17
waterpower; 24, 51, 106, 181
whistleblower; 10, 34, 40
wildlife management; 47, 51, 52, 90, 104
wind turbine(s); 15, 29, 51
Wye Marsh; 43

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**801 kg of waste**
16 waste containers

**3 kg $NO_x$**
emissions of one truck during 10 days

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